Medical TIMES

THE JOURNAL OF GENERAL PRACTICE

94 out of 102 patients with hay fever benefited by PHENERGAN therapy *

Most efficacious

Longest-Acting

New clinical evidence continues to emphasize the superiority of Phenergan in the treatment of hay fever:

"Results obtained with Phenergan in symptomatic relief of pollen hay fever were far superior to those obtained with any other antihistaminic agent."*

"No other antihistamine, in our experience, has exhibited such prolonged action."*

SYRUP **TABLETS**

PHENERGAN®

Hydrochloride

Wyeth®

Promethazine Hydrochloride

(N-[2'-dimethylamino-2'-methyl] ethyl phenothiazine hydrochloride) Wyeth

*Silbert, N. E.: Ann. Allergy *10*:2, May-June 1952

SUPPLIED: Syrup Phenergan Hydrochloride, 6.25 mg. per 5 cc., bottles of 1 pt. Tablets Phenergan Hydrochloride, 12.5 mg. each, bottles of 100 tablets. ALSO AVAILABLE: *2 dosage forms for topical therapy*—Cream Phenergan Hydrochloride, tubes of 1.12 ounces; Phenergan Lotion with Neocalamine, bottles of 4 fluid-ounces; *For control of "allergic" cough associated with vasomotor rhinitis, pollen hay fever*—Phenergan Expectorant with Codeine, bottles of 1 pint.

CONTENTS

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Laxative Action

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Some laxatives take many hours to act, but not Sal Hepatica.® There is no laxative lag, no extra hours of continuing discomfort for your patient when you recommend this saline laxative as follows: Taken one-half hour before the evening meal, laxation or catharsis occurs before bedtime. In the morning, taken one-half hour before breakfast, relief usually occurs within the hour. • Dependably gentle action is also a feature of Sal Hepatica. There is no abdominal griping when Sal Hepatica is given in proper dosage. Sal Hepatica combats gastric hyperacidity because it has an antacid effect. • Flexible dosage allows you to adjust the drug to the individual. By regulating the amount prescribed you may achieve a cathartic, laxative or aperient action.

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CONTENTS

when rapid
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in hypochromic anemias
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provides four-fold stimulation of blood regeneration. Prompt production of hemoglobin and erythrocytes avoids the delayed response often encountered in iron replacement therapy.

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With **des** routine, Gitman and Kaplowitz[1] obtained 15 live births from 17 women with histories of one abortion — 88%.

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NEW des potencies for massive dosage therapy.

des 50 mg. micronized diethylstilbestrol tablets

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REFERENCES:

1. Gitman, L., and Kaplowitz A.: Use of diethylstilbestrol in complications of pregnancy. New York State J. Med. 50:2823: 1950.
2. Ross, J.S.: Use of diethylstilbestrol in the treatment of threatened abortion. N. Nat. M.A. 43:20, 1951.
3. Karnaky, K.J.: Am. J. Obsts. & Gynec. 58,622. 1949.

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Medical TIMES

THE JOURNAL OF GENERAL PRACTICE

Incorporating the Long Island Medical Journal and Western Medical Times

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in hay fever

Pyribenzamine®

unsurpassed

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And the same is true in the many other allergic manifestations in which antihistamines are prescribed: *allergic rhinitis, serum sickness, angioneurotic edema, drug reactions, and itching skin conditions such as atopic and contact dermatitis and urticaria.* Recognized for its excellent therapeutic effectiveness and wide range of usefulness, Pyribenzamine is prescribed today as it was when it first became known *for maximum relief with minimal side effects.*

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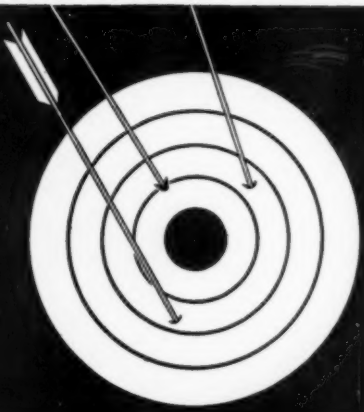
Especially in your choice of a solution for rapid disinfection of delicate instruments—for Ward and Professional Office use...



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- Potently effective even in the presence of soap.

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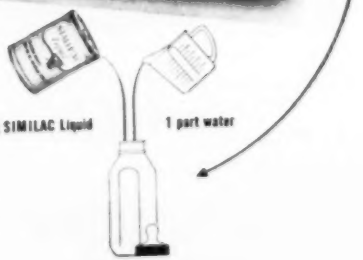

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COMPOSITION: PRECEPTIN vaginal gel contains the active spermicidal agents p-Diisobutylphenoxypolyethoxyethanol and ricinoleic acid in a synthetic Gel base buffered at pH 4.5.

†Hunter, G. Wilson, Garner, C. B., and Gillam, J. S.: A Method of Contraception Without Diaphragm — A Two-Year Investigation. World Population Problems and Birth Control, Ann. New York Acad. Sc. 54:825, 1952.

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estrogenic therapy for atrophic vaginitis

Local Therapy to stimulate restoration of vaginal epithelium in atrophic and senile vaginitis in postmenopausal pruritus vulvae

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vaginal estrogen therapy

By stimulating return of the vaginal mucosa to a more normal state, Dienestrol Cream combats the painful and distressing symptoms commonly associated with atrophy of the vaginal epithelium — pruritus, inflammation, pelvic discomfort and discharge. No untoward reactions have been noted in patients using Dienestrol Cream over long periods.*

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On original prescriptions specify "Dienestrol Cream *with applicator.*"

*McLane, C. M.: Am. J. Obst. & Gynec. 57:1018, 1949.

general management in the menopause...
of endocrine and nervous symptoms

hexital tablets Ortho

TRADE MARK

oral estrogenic therapy plus sedation

For the neuro-endocrine imbalance of the menopause, Hexital combines the estrogen Hexestrol 3 mg. with the sedative Phenobarbital 20 mg. (⅓ gr.). In the menopausal syndrome Hexital has the advantage of high estrogenic activity and flexible dosage by oral administration. Side effects are rarely encountered.

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in fluid form for children
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gentle, safe sleep and sedation

DORMISON *liquid*

New DORMISON Liquid, containing 250 mg. per teaspoonful, has the wide margin of safety desirable in a sedative-hypnotic for all age groups. Remarkably free from depressive after-effects, patients usually awaken refreshed and alert. Respiration is not depressed nor is blood pressure or pulse rate affected.

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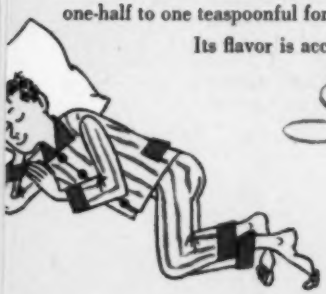
*T.M.



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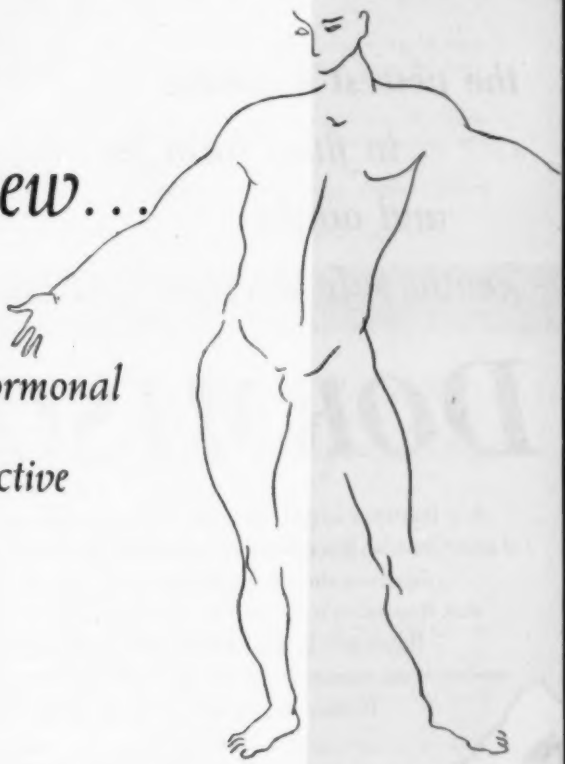
BUTAZOLIDIN®

brand of phenylbutazone

for relief of



totally ***new***. . .

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ARTHRITIS *and allied disorders*

After almost four years of intensive pharmacologic and clinical research, BUTAZOLIDIN, a totally new nonsteroidal agent for the relief of arthritis and allied disorders, is now available on prescription.

The distinctive features of BUTAZOLIDIN include:

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- ***Prompt Action*** manifested generally by clinical improvement in 24-48 hours.
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- ***Effectiveness by Mouth*** in dosage of 600-800 mg. daily.

BUTAZOLIDIN *is well within the means* of the average patient.

indicated in all arthritic and allied disorders

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For relief of pain associated with:

Fibrositis
Muscular Rheumatism
Bursitis
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Myositis
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Sciatica
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Geigy

In order to obtain optimal results and to avoid untoward reaction it is highly desirable for the physician to become thoroughly acquainted with the characteristics of BUTAZOLIDIN before prescribing it. Physicians are urged to read the package circular carefully or to write for the BUTAZOLIDIN brochure, which will gladly be sent on request.

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In the

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contact dermatitis

pruritis ani, vulvae, scroti

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control the itch

Bristamin* Lotion affords prompt and sustained relief from itching, allergic or non-allergic in origin, with three or four applications daily.

A new, versatile antihistaminic and antipruritic, it is supplied in a cosmetically delightful neutral base which fastidious patients will appreciate.

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Available in bottles of 6 fluid ounces.

Bristamin Lotion

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*Bristamin brand of Phenyltoloxamine, an exclusive development of Bristol research, is an antihistaminic, antimycotic, and topical anesthetic with an exceptionally low order of toxicity.

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loves a
fat man
except

vital statistics*

heart disease 42%
cerebral hemorrhage 59%
nephritis 91%
diabetes 283%
cirrhosis 149%
appendicitis 123%
gallstones 106%

*(Stat. Bull. Met. Life Ins. Co. 32:10:1, 1951)

Cycotin — for double-acting control of abnormal hunger.

High content of the satisfying non-nutritional bulk of hydrophilic methylcellulose (500 mg. per tablet)

Low dosage of *d*-amphetamine phosphate (2.5 mg. per tablet) for psychologic elevation of mood.

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Dosage:
Two tablets with water three times daily before meals.

Reed & Carnrick *a trusted name since 1860*
Jersey City 6, N. J., Toronto, Ont.

In **Rheumatic** conditions

relieves muscle-spasm which causes pain

relieves pain which causes spasm

helps minimize disabling postural deformities

controls concomitant gastro-intestinal distress

Mephosal

A **new** whole-patient approach to the problem of pain — spasm — more pain in

low back pain, sciatica, arthritis, stiff neck, night cramps, sacroiliac distress

and other common rheumatic disorders

MEPHOSAL—ELIXIR (new) and TABLETS—contains

	each tablet	each teaspoonful (4 cc.) elixir
Mephenesin—modern, safe, non-toxic, effective skeletal-muscle antispasmodic	125 mg.	400 mg.
Sodium Salicylate—specific for rheumatic pain	125 mg.	400 mg.
Homatropine Methylbromide—safest and most efficient gastro-intestinal antispasmodic to control concomitant g.i. distress.	1.25 mg.	2.5 mg.

Average Dose: 2 or 3 tablets or one teaspoonful elixir every 3 or 4 hours.
Supplied in bottles of 50, 100 and 500 tablets. Elixir, 8 oz. and 1 pint.

Samples and detailed literature to the profession on request.

Crookes

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ACETATE

for

CORTISONE

therapy

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diuretic tablets

that work

like an injection

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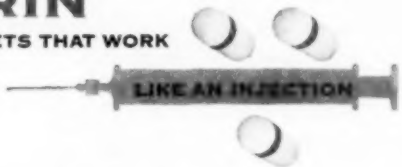
*TRADEMARK APPLIED FOR

NEW safeguard for the "drowning heart." Prescribe in congestive heart failure, recurring edema, cardiac asthma, hypertensive heart disease, dyspnea of cardiac origin, arteriosclerotic heart disease, fluid retention masked by obesity and for patients averse to their low-sodium diets.

NEOHYDRIN

THE DIURETIC TABLETS THAT WORK



NEW convenience, simplicity and safety. Replaces dependence on injections, xanthines, ammonium chloride, resins, aminophylline and other less effective tablets.

NEOHYDRIN

a product of *Lakeside leadership in diuretic research*

How To Use This New Drug: Maintenance of the edema-free state has been accomplished with as little as one NEOHYDRIN Tablet a day. Often this dosage of NEOHYDRIN will obtain in a week an effect comparable to a weekly injection of MERCUHYDRIN®. When more intensive therapy is required one tablet or more three times daily may be prescribed as determined by the physician.

Gradual attainment of the ultimate maintenance dosage is recommended to preclude gastrointestinal upset which may occur in occasional patients with immediate high dosage. Though sustained, the onset of NEOHYDRIN diuresis is gradual. Injections of MERCUHYDRIN will be initially necessary in acute severe decompensation.

Any patient receiving a diuretic should ingest daily a glass of orange juice or other supplementary source of potassium.

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NEOHYDRIN: Bottles of 50 tablets. There are 18.3 mg. of 3-chloromercuri-2-methoxy-propylurea in each tablet.

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when other external therapy seems to get **nowhere...**

accelerate healing with

Study[1], after study[2] after study[3] corroborates the "notable"[1] success of Desitin Ointment in easing pain and stimulating smooth tissue repair in lacerated, denuded, chafed, irritated, ulcerated tissues—often in stubborn conditions where other therapy fails.

Protective, soothing, healing, Desitin Ointment is a non-irritating, blend of high grade, crude Norwegian cod liver oil (with its unsaturated fatty acids and high potency vitamins A and D in proper ratio for maximum efficacy), zinc oxide, talcum, petrolatum, and lanolin. Does not liquefy at body temperature and is not decomposed or washed away by secretions, exudate, urine or excrements. Dressings easily applied and painlessly removed. Tubes of 1 oz., 2 oz., 4 oz., and 1 lb. jars.

write for **samples** and literature

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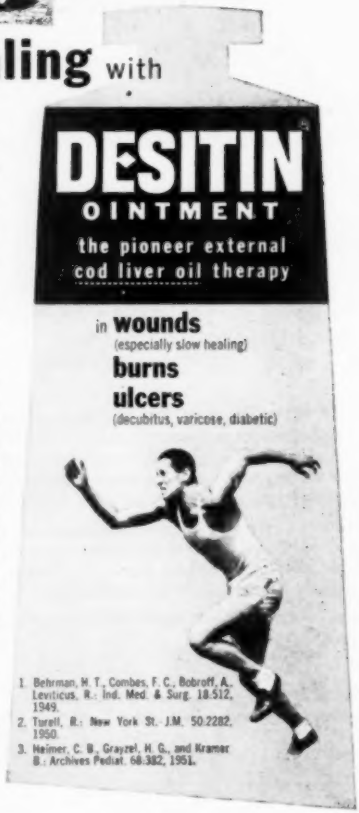

Control IN ANGINA PECTORIS AND BRONCHIAL ASTHMA

A Potent Coronary Vasodilator

Ammivin (PURE CRYSTALLINE KHELLIN)

for assured prevention of attacks

EFFECTIVE AMMIVIN is a potent coronary vasodilator and bronchodilator. Parenteral administration facilitates obtaining effective tissue saturation quickly and with minimal side effects. Tissue saturation can be maintained by AMMIVIN enteric coated tablets.

WELL TOLERATED AMMIVIN, parenterally administered and supplemented orally, is well tolerated.

SAFE AMMIVIN in therapeutic dosage has a wide margin of safety. Even after prolonged administration it does not affect the blood pressure or pulse rate, alter kidney function, increase the oxygen requirements of the heart or stimulate the nervous system.

FLEXIBLE AMMIVIN permits extreme flexibility of dosage and administration. It is available in solution for intramuscular injection and in enteric coated tablets.

AVAILABLE:

PARENTERAL	ORAL
Ammivin Injection: 10 cc. multiple dose vials, 50 mg. of pure khellin per cc.	Ammivin tablets (enteric coated): one gram cases—10 cgs. per tablet, bottles of 100; 20 cgs. per tablet, bottles of 40 and 100.

Write for literature, booklet and samples

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More Than Half a Century of Service to the Medical Profession

"Adoption of these control measures now is warranted by the evidence so far obtained" . . .

Now *Therapeutic or Prophylactic Management in*

ATHEROSCLEROSIS-DIABETES

CORONARY DISEASES

GERICAPS

(SHERMAN)

Each capsule supplies the true lipotropics (choline and inositol) approximately equivalent to one gram—choline dihydrogen citrate, also Vitamin A and the B-Complex factors, together with rutin and Vitamin C in adequate amounts.

● The Gericaps formula makes possible a double use (Prophylactic and therapeutic) in the management of conditions of impaired metabolism of fat and cholesterol.

The lipotropics in Gericaps enter into the bio-synthesis of phospholipids, helping to bring about a better *balanced ratio* of cholesterol and phospholipids, which has been suggested as more important than the actual cholesterol level itself.

The low fat and cholesterol diet indicated is supplemented with adequate vitamins in the Gericaps formula, to compensate for the possible deficiencies caused by this restricted diet.

Gericaps contain therapeutic amounts of the factors to combat capillary weakness (rutin and Vitamin C) so often associated with abnormal cholesterol and fat metabolism.

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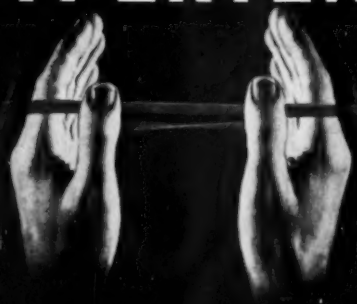
For HYPERTENSION



SAFER THIOCYANATE Therapy with

TURASED

TURASED provides rapid and prolonged reduction of blood pressure with lower serum levels of thiocyanate—thus increasing the margin of safety. Comparative clinical study[1] with TURASED has revealed "the infrequency of toxic or sensitivity reactions." In no case did capillary fragility become abnormal while the patient was receiving this preparation.

The potentiated, safer thiocyanate therapy made possible with TURASED is based upon the synergism offered by this original combination of ingredients.

1. Parsonnet, A. E., et al.: J. M. Soc. New Jersey 47: 504, 1950.

Per tablet:

Pentobarbital Sodium ¼ gr. (16.2 mg.)
(Warning: may be habit-forming)
Potassium Thiocyanate . ¾ gr. (48.7 mg.)
Sodium Nitrite . . . . . ½ gr. (32.5 mg.)
Rutin . . . . . 10 mg.

SUPPLIED: Bottles of 100 and 500 coated (yellow) tablets.

THE
E. L. PATCH COMPANY
STONEHAM • MASSACHUSETTS

"A better tomorrow in the longer life ahead"

COMPOSITION—

Each teaspoonful contains:

Choline Dihydrogen Citrate	250 mg.
Inositol	100 mg.
Ascorbic Acid	75 mg.
Thiamin Hydrochloride	12.5 mg.
Riboflavin	1.25 mg.
Pyridoxine Hydrochloride	0.62 mg.
Niacinamide	12.5 mg.
Calcium Pantothenate	2.5 mg.

Suggested Dose: One to four teaspoonsful. List No. 299 Supplied in pint bottles.

Recent observations on nutrition are significantly important in relation to the promise of a richer and longer life.

With maturing years, interrelated nutritional deficiencies often exist. Under conditions of a low calorie or protein deficient diet, where a deficiency of B-Complex and Vitamin C occurs, a deficiency of lipotropics also threatens.

In malnutrition, febrile illness and faulty fat metabolism of the heart, liver and kidneys, adequate diet supplements of B-Complex, Vitamin C and lipotropics (choline and inositol) are indicated.

Gericole is especially designed for these conditions. Its bright color, pleasant taste and comprehensive formula assures the physician of patient cooperation and a satisfying clinical response.

A card marked "Gericole" will bring you sample and literature

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LETTERS TO THE EDITOR

This department is offered as an Open Forum for the discussion of topical medical issues. All letters must be signed. However, to protect the identity of writers, who are invited to comment on controversial subjects, names will be omitted when requested.

A Criticism and a Rebuttal

Editor's Note—In our March 1952 issue we published an article by Dr. Wallace Marshall of Two Rivers, Wisconsin, on a simplified method of determining initial insulin dosage in diabetics. On or about March 27 a letter from Dr. Willard D. Holt of Altus, Oklahoma, to Dr. L. Chester McHenry, Associate Editor of the MEDICAL TIMES, criticising the article by Dr. Marshall, was referred to us by Dr. McHenry. The letter follows:

"Dear Doctor McHenry:

"I am enclosing an article that I clipped from MEDICAL TIMES for March 1952. I do not know the man who is responsible for the article but the impressions that it leaves are certainly not within the realm of the care of diabetic coma. Either this Joker don't know anything about the subject or he should have labeled the article, 'To be continued.'

"Since you are connected with this publication I thought you should know about this and send it on to the man who is in charge of the section on medicine.

"As one who has had a little experience with diabetic coma my prediction would be that his mortality must be pretty high. The further amazing thing about this particular article is that it comes under the heading of research. I hope you did not miss it when you looked over the magazine."

Willard D. Holt, M.D.
Altus, Okla.

The above letter was not sent to Dr. Marshall but was returned to Dr. McHenry for his files with the following remarks:
"Dear Doctor McHenry:

"Since Dr. Holt's criticism of Dr. Marshall's

—Continued on page 40a

in *Anemia*

why not prescribe
All the Important Nutritive Factors?

Recent investigation has demonstrated the great importance of nutritional factors in blood formation.[1] No single mineral element is capable of hemopoietic stimulation in the absence of balanced proportions of other equally important elements.

HEPTUNA PLUS provides the interrelated actions of Vitamins and Minerals and Trace Elements for efficient anemia therapy—including Vitamin B_{12}, Ascorbic Acid and Folic Acid for specific hemopoietic stimulation.

1. Duncan, G. G., ed.: Diseases of Metabolism. Ed. 2. (Philadelphia: W. B. Saunders and Co.), 1947, p. 352.

Heptuna plus

Available at all Pharmacies

all in one capsule

FERROUS SULFATE U.S.P.	4.5 gr.
VITAMIN B12	5.0 mcg.
FOLIC ACID	0.33 mg.
ASCORBIC ACID	50.0 mg.
COBALT	0.1 mg.
COPPER	1 mg.
MOLYBDENUM	0.2 mg.
CALCIUM	37.4 mg.
IODINE	0.05 mg.
MANGANESE	0.033 mg.
MAGNESIUM	2 mg.
PHOSPHORUS	29.0 mg.
POTASSIUM	1.7 mg.
ZINC	0.4 mg.
VITAMIN A	5,000 U.S.P. units
VITAMIN D	500 U.S.P. units
THIAMINE HYDROCHLORIDE	2 mg.
RIBOFLAVIN	2 mg.
PYRIDOXINE HYDROCHLORIDE	0.1 mg.
NIACINAMIDE	10 mg.
CALCIUM PANTOTHENATE	0.33 mg.

With other B-Complex Factors from Liver.

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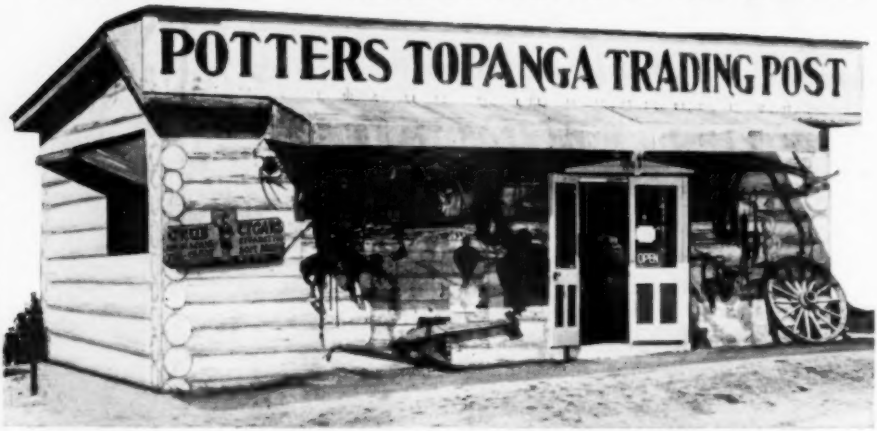
How this Small Country Store Helps Protect Your Recommendation of Carnation



YOU'LL FIND this store a few miles up the coast from Santa Monica, California ...where Topanga Canyon, after winding through the mountains from the San Fernando Valley meets the Pacific Ocean. And if you were to step inside, you'd see that it is well-stocked with Carnation...the *only* evaporated milk on the shelves.

This could be any of so many country stores throughout America. The point is that no matter how small they are—nor how isolated—they almost certainly carry Carnation...often *exclusively.*

So when you specify Carnation for an infant's formula, you can be sure that the mother will be able to find it wherever she travels.

Only Carnation Gives Your Recommendation This 5-WAY PROTECTION

1. Carnation is constantly improving the raw milk supply. Cattle bred from world champion Carnation bloodlines are shipped to dairy farmers all over the country to improve the milk supplied to Carnation evaporating plants.

2. Carnation accepts only high quality milk for processing. Carnation Field Men regularly check local farmers' herds, sanitary conditions and equipment—reject milk if it fails to meet Carnation's high standards.

3. Carnation processes ALL the milk sold under the Carnation label. From cow to can Carnation Milk is processed *—with prescription accuracy—*in Carnation's *own* plants under its *own* supervision.

4. Carnation quality control continues even AFTER the milk leaves the plant. To be sure of freshness and highest quality, Carnation salesmen use a special code control in making frequent inspection of dealers' stocks.

5. Carnation Milk is available in virtually every grocery store in every town throughout America.

DOUBLE-RICH in the food values of whole milk

FORTIFIED with 400 units of vitamin D per pint

HEAT-REFINED for easier digestibility

STERILIZED in the sealed can for complete safety

"The Milk Every Doctor Knows" "from Contented Cows"

Protected for a whole day

'Perazil' gives practical protection from the effects of allergens. Observers have agreed that: "The percentage and severity of side reactions was very low. Due to the longer duration of action of 'Perazil', less frequent administration of tablets was necessary."[1]

'Perazil' was developed by The Wellcome Research Laboratories in the search for an ideal antihistaminic. Its chemical composition is unique. One 50 mg. tablet acts for 12 to 24 hours as a rule in relieving allergies.

'Perazil' **Cream** may be used for topical antihistaminic and antipruritic effect.

'Perazil'® brand

Chlorcyclizine Hydrochloride, 50 mg., Compressed, scored... also 'PERAZIL'® *brand Chlorcyclizine Hydrochloride* CREAM *1%*

1. *Cullick, L., and Ogden, H. D.: J. So. Med. Assn., 43: 642, 1950*

Burroughs Wellcome & Co. (U.S.A.) Inc., *Tuckahoe 7, N.Y.*

Acid Control in Peptic Ulcer

...WITHOUT CONSTIPATION

Modern antacid therapy with alumina gel is usually successful. But in many cases constipation ensues.

Then you have the incongruous situation of the patient dosing himself daily with laxatives in addition to his regular alumina gel intake.

You can help nearly every patient avoid this disturbance by prescribing Gelusil. Unlike most alumina gel preparations, it is singularly free of constipating action.[1,2,3,4] Gelusil embodies a unique form of non-reactive aluminum hydroxide gel combined with magnesium trisilicate. It helps control gastric hyperacidity without causing constipation.

Prescribe Gelusil in liquid or tablets. Bottles of 6 or 12 oz.; boxes of 50 or 100 tablets.

1. *Seley, S. A.: Am. J. Dig. Dis. 13:258 (July) 1946.* 2. *Rossien, A. X.: Rev. of Gastroenterol. 16:34-52 (Jan.) 1949.* 3. *Rossien, A. X. and Victor, A. W.: Am. J. Dig. Dis. 14:226-229 (July) 1947.* 4. *Butterman, R. C. and Ehrenfeld, I.: Gastroenterol. 9:141 (August) 1947.*

Gelusil®

THE NON-CONSTIPATING ANTACID ADSORBENT

WILLIAM R. WARNER DIVISION OF WARNER-HUDNUT, INC. NEW YORK 11, N. Y.

7½ gr. (0.5 Gm.) *BLUE* CAPSULES CHLORAL HYDRATE – *Fellows*

• DESIRABLE SLEEP

lasting from five to eight hours, usually free from undesirable after-effects. Pulse and respiration are slowed in the same manner as in normal sleep. Reflexes are not abolished and the patient can be readily aroused.[2] "CHLORAL HYDRATE produces a normal type of sleep, and is rarely followed by 'hangover'."[1]

Dosage: One to two 7½ gr., or two to four 3¾ gr. capsules at bedtime.

CAPSULES CHLORAL HYDRATE – *Fellows*

ODORLESS • NON-BARBITURATE • TASTELESS

3¾ gr. (0.25 Gm.) *BLUE and WHITE* CAPSULES CHLORAL HYDRATE—*Fellows*

• DAYTIME SEDATION

for the patient who needs daytime sedation and relaxation with complete comfort.

Dosage: One 3¾ gr. capsule three times a day, after meals.

EXCRETION — Rapid and complete, therefore no depressant after-effects.[3, 4]

Available: Capsules CHLORAL HYDRATE — Fellows
3¾ gr. (0.25 Gm.) Blue and white capsules . . . bottles of 24's and 100's
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Professional samples and literature on request

Fellows Medical Mfg. Co., Inc. Pharmaceuticals

pharmaceuticals since 1866
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BIBLIOGRAPHY
1. Hewes, H. T.: An Integrated Practice of Medicine (1950)
2. Robbins, M. B., et al: A Course in Practical Therapeutics (1949)
3. Goodman, L., and Gilman, A.: The Pharmacological Basis of Therapeutics (1941), 22nd printing, 1951.
4. Sollmann, T.: A Manual of Pharmacology, 7th ed. (1948), and Useful Drugs, 14th ed. (1947)

LETTERS TO THE EDITOR

—Continued from page 34a

article is couched in general terms and makes no specific points there was no point in referring it to Dr. Marshall; so I am returning your letter from Dr. Holt for your files.

"I am sorry we could not have had a constructive discussion of the subject in our Letters-to-the-Editor section of the journal.

"It would still be helpful editorially to me if I could learn what it was I failed to perceive in the article when it was submitted for publication; Dr. Holt's letter gives no clue to it."

Arthur C. Jacobson, M.D
Editor, Medical Times

The following letter from Dr. Holt was received by the editor on May 20; it was promptly referred to Dr. Marshall.

"Dear Doctor Jacobson:

"With reference to the enclosed article and subsequent correspondence it seems to me that the point in the treatment of diabetic coma is missed considerably.

"The two main problems in diabetic coma are: 1. Acidosis and 2. Dehydration. The blood sugar, in itself, is of no particular importance in the emergency treatment which presents itself in coma.

"It takes proper oxidization of sugar with insulin to properly prevent excess and incomplete oxidization of fats, and the lack of either (glucose or insulin) is dangerous over a period of time with a resulting acidosis. Many diabetics walk into the office with extremely high blood sugars without acidosis. A person may still be in a diabetic coma with a normal blood sugar, and while this is not usually the case it is possible after administration of insulin.

"It seems, therefore, to me that the problem of diabetic coma is not primarily one of lowering the blood sugar but of treating the main offenders at the time (acidosis and dehydration), then try and stabilize your patient by diet and insulin when the emergency of coma is over.

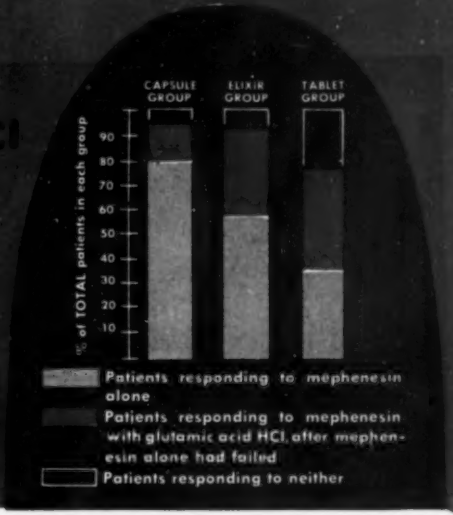
"I hope this clears up what I had in mind when I wrote Dr. McHenry. The article may have great value in the regulation of diabetes but once coma is in full swing one had better give insulin freely enough to allow proper sugar oxidization so that the body may get rid of the acidosis and in addition correct dehydration as necessary."

Willard D. Holt, M.D.

A copy of Dr. Marshall's reply to Dr. Holt, sent directly to him, is subjoined herewith:

—Continued on page 56a

How Glutamic Acid HCl Increases the Response in Oral Mephenesin Therapy...



Capsules TOLAMIC TRADEMARK

[BRAND OF MEPHENESIN AND GLUTAMIC ACID HYDROCHLORIDE]

Glutamic acid hydrochloride when given with mephenesin was found to increase significantly the number of favorable responses to oral mephenesin therapy in a series of 200 cases of neurotic disorders.

It is postulated that failures in oral administration result from poor absorption of mephenesin, and that glutamic acid increased the solubility and absorption.

SUPPLIED: TOLAMIC Capsules, bottles of 100, 500, and 1000.

Each TOLAMIC* capsule provides:
Mephenesin . . . . . 0.25 Gm.

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Glutamic Acid
Hydrochloride . . . . . 0.25 Gm.

"Until this combination therapy has failed, mephenesin should not be discarded as ineffectual."[1]

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Ethical Pharmaceuticals Since 1894

1. Hermann, I. F., and Smith, R. T.: Journal-Lancet 71: 271, 1951.

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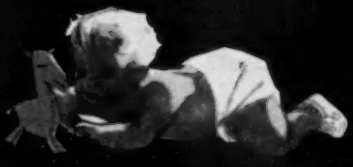

establish maximum immunity

against Diphtheria, Pertussis and Tetanus...

Dip-Pert-Tet Alhydrox® produces superior antitoxin levels... with minimum reactions. Alhydrox, available only in Cutter immunizing agents, prolongs antigenic stimulus.

Dip-Pert-Tet Alhydrox provides 45 billion Phase I H. pertussis organisms per immunization course. Minimal dosage—0.5 cc. per injection, only 3 injections.

Try it,—compare it in your own practice. You will see that undesirable reactions are reduced to a minimum with purified

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How Supplied: 1.5 cc. vial (1 immunization) • 7.5 cc. vial (5 immunizations)

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Convalescence calls for High Protein and Knox Gelatine

Convalescence is associated with protein loss of serious magnitude, yet little is known of the fundamental nature of the loss.[1] Loss of nitrogen cannot be prevented; however, nitrogen balance can be maintained, wound healing enhanced, and convalescence shortened, by a high protein diet.[2]

Otherwise the patient uses his own "available" nitrogen stores to accomplish the healing defect.[3]

The patient "is better off before his nitrogen stores have been wasted than after. Surgeons have long noted that chronically debilitated patients are poor operative risks."[1] Decubitus ulcers heal quickly in heavily protein-fed patients.[4]

These facts are clear, as is also the fact that Knox Gelatine, which is pure protein, offers a useful method of supplementing the ordinary dietary protein.

Knox Gelatine is easy to digest, while its supplementary dietary nitrogen will furnish protein without other substances, especially salts of potassium which are retained during convalescence; without excess fat and carbohydrate, which are not needed especially; and without a food volume which may interfere with intake.

1. Howard, J. E. Protein Metabolism During Convalescence After Trauma. Arch. Surg. 50:166, 1945.
2. Co Tui, Minutes of the Conference on Metabolism Aspects of Convalescence Including Bone and Wound Healing. Josiah Macy, Jr. Foundation, Fifth Meeting Oct. 8-9, p. 57, 1943.
3. Whipple, G. H. and Madden, S. C. Hemoglobin, Plasma Protein and Cell Protein: Their Interchange and Construction in Emergencies. Medicine 23:215, 1944.
4. Mulholland, J. H., Co Tui, Wright, A. M., Vinci, V., and Shafiroff, B. Protein Metabolism and Bed Sores. Am. Surg. 118:1015, 1943.

Available at Grocery Stores in 4-envelope Family Size and 32-envelope Economy Size Packages.

Write today for your free copy "Feeding the Sick and Convalescent." Knox Gelatine, Johnstown, N. Y., Dept. MT

KNOX GELATINE U.S.P. – ALL PROTEIN NO SUGAR

Edrisal*: "an entirely adequate substitute for ordinary doses of codeine..."

(Am. J. Obst. & Gynec. *61*:1366, 1951)

but 'Edrisal' contains no narcotics!

Each 'Edrisal' tablet contains:	
Benzedrine* Sulfate (racemic amphetamine sulfate, S.K.F.)	2.5 mg.
Acetylsalicylic acid	2.5 gr.
Phenacetin	2.5 gr.

Dose: 2 tablets

please note: The color of the 'Edrisal' tablet has been changed from white to blue-green.

'Edrisal' relieves pain and the depression that magnifies pain

Smith, Kline & French Laboratories | *Philadelphia*

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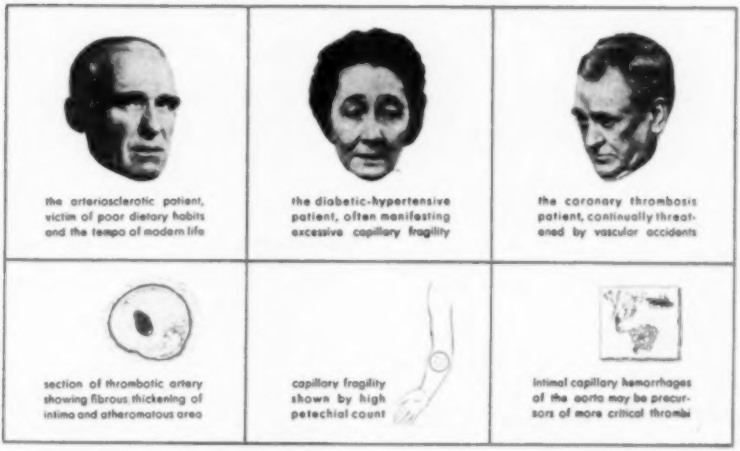
POTENT PROTECTION

> > > against the combined threats of arteriosclerosis and capillary fragility



the arteriosclerotic patient, victim of poor dietary habits and the tempo of modern life

the diabetic-hypertensive patient, often manifesting excessive capillary fragility

the coronary thrombosis patient, continually threatened by vascular accidents

section of thrombotic artery showing fibrous thickening of intima and atheromatous area

capillary fragility shown by high petechial count

intimal capillary hemorrhages of the aorta may be precursors of more critical thrombi

VASCUTUM

TRADEMARK

for the life that begins at forty

VASCUTUM* makes possible a dual attack, both prophylactic *and* therapeutic, in the two-front battle against hypercholesterolemia and capillary fragility, combining in one medication:

1 Potent amounts of lipotropic agents, to promote decholesterolization in atherosclerosis, liver cirrhosis and diabetes mellitus.

2 Therapeutic amounts of rutin and ascorbic acid, to combat related capillary weakness effectively. Damaging retinal hemorrhage often results from excessive capillary fragility and associated abnormal cholesterol deposits.

The average daily dose (6 tablets) provides:

Choline	1 Gm.	Pyridoxine HCl	4 mg
Inositol	1 Gm.	Rutin	150 mg.
dl-Methionine	500 mg.	Ascorbic Acid	75 mg.

VASCUTUM marks a distinct advance in the management of interrelated degenerative diseases affecting the middle-aged and elderly.

SUPPLIED in bottles containing 100 tablets.

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MODERN MEDICINALS

these brief resumes of essential information on the newer medicinals, which are not yet listed in the various reference books, can be pasted on file cards and a record kept. This file can be kept by the physician for ready reference.

Apolamine, Winthrop-Stearns, Inc., New York 18, N. Y. Antiemetic, in pregnancy, motion sickness, anesthesia and radiation sickness, alcoholic gastritis and nonspecific vomiting, and vomiting due to pain-relieving drugs. **Dose:** As determined by physician. **Sup:** In bottles of 100 tablets.

Aramine Bitartrate, Sharp & Dohme, Inc., West Point, Pa. Intranasal decongestant. **Dose:** To be used as a spray or by the dropper method at the discretion of the physician. **Sup:** In bottles of 1 fl. oz. with dropper.

Bemocin Capsules, Ayerst, McKenna & Harrison, Ltd., New York 16, N. Y. A formula providing massive dosages of oxytropic B factors and ascorbic acid together with hemopoietic, lipotropic, and other factors of the B group. **Dose:** One to 3 capsules daily or as directed by physician. **Sup:** In bottles of 30, 100 and 1,000 capsules.

Bidrolin, Armour Labs., Inc., Chicago 11, Ill. Combination of dehydrocholic acid and chlorine in the management of indigestion, constipation and flatulence of biliary origin, in biliary stasis, in maintaining drainage after gallbladder surgery and in non-calculous cholangitis and cholecystitis when the gallbladder is still able to expand; is contraindicated in obstructions of the hepatic or common duct and in severe hepatitis. **Dose:** Two tablets after meals 2 or 3 times daily. **Sup:** In bottles of 100 tablets.

Cilloral 250 Powder, Bristol Labs., Inc., Syracuse, N. Y. For the preparation of oral solution containing 3,000,000 units Penicillin G Potassium buffered with Sodium Citrate. **Dose:** As determined by physician. **Sup:** In bottles of 60 cc.

Cobetaron Capsules, The Warren-Teed Products Co., Columbus 8, Ohio. In the treatment of anemia—microcytic, macrocytic and hypochromic. **Dose:** One capsule 3 times daily, maintenance, 1 capsule daily. **Sup:** In bottles of 50 and 500 capsules.

Co-Pyronil, Eli Lilly & Co., Indianapolis 6, Ind. An antihistaminic combination of Pyrobutamine, Thenylpyramine and Cyclopentamine. **Dose:** Usually only 1 or 2 capsules daily. **Sup:** In bottles of 100, 1,000 and 5,000 capsules.

Cotinazin, Charles Pfizer & Co., Inc., Brooklyn 6, N. Y. Anti-tuberculosis therapy. **Dose:** As determined by physician. **Sup:** In 50 mg. tablets.

Covitral, Flint, Eaton & Co., Decatur 60, Ill. Lipotropic-hematopoietic. **Dose:** Two capsules with each meal. **Sup:** In bottles of 100, 500 and 1,000 capsules.

Dexamyl Elixir, Smith, Kline & French Labs., Philadelphia 1, Pa. To relieve nervousness, irritability, anxiety, depression and inner tension. **Dose:** A dose of 1 teaspoonful 2 or 3 times daily is usually successful. To determine the optimal dose for the individual, begin with two test doses, one given on arising and the other 4 to 6 hours later. Response to these doses will be the best guide to further administration. **Sup:** In 12 fl. oz. bottles.

Ditubin, Schering Corp., Bloomfield, N. J. For streptomycin-resistant tuberculosis, tuberculous meningitis and miliary tuberculosis. **Dose:** Two or four mg. Kg. is recommended. Daily dose should not exceed 150 to 200 mg. **Sup:** In bottles of 100 and 1,000 tablets (50 mg.).

Feosol Hematonic, Smith, Kline & French Labs., Philadelphia, Pa. For treatment of anemias—both microcytic and most macrocytic. **Dose:** As determined by physician. **Sup:** In bottles of 100 tablets.

—Continued on page 48a

Prelude to asthma?

not necessarily . . .

Tedral, taken at first sign of attack, often forestalls severe symptoms.

in 15 minutes...Tedral brings symptomatic relief with a definite increase in vital capacity. Breathing becomes easier as Tedral relaxes smooth muscle, reduces tissue edema, provides mild sedation.

for 4 full hours...Tedral maintains more normal respiration for a sustained period—not just a momentary pause in the attack.

Prompt and prolonged relief with Tedral can be initiated any time, day or night, whenever needed without fear of incapacitating side effects.

Tedral provides:

theophylline	2 gr.
ephedrine	⅜ gr.
phenobarbital	⅛ gr.

in boxes of 24, 120 and 1000 tablets

Tedral

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—Concluded from page 46a

Flo-Cillin Aqueous-DS, Bristol Lbs., Inc., Syracuse, N. Y. In a new strength. For the simultaneous administration of penicillin and dihydrostreptomycin for action against infections caused by both gram-positive and gram-negative organisms. **Dose:** As determined by physician. **Sup:** In 3 cc. vials, containing 400,000 units of Procaine Penicillin G plus 1.0 gm. Dihydrostreptomycin.

Gantrisin Diethanolamine Ophthalmic Ointment, Hoffmann-LaRoche, Inc., Nutley 10, N. J. Sulfonamide ointment for eye infections such as "pink eye" and "swimming pool conjunctivitis." **Dose:** As determined by physician. **Sup:** In tubes of ⅛ oz.

Gemonil, Abbott Laboratories, North Chicago, Ill. In the treatment of grand mal, petit mal and myoclonic epilepsy, and in mixed types of seizures. May be used in conjunction with other antiepileptic medications. **Dose:** Initial dosage for infants and children, ½ to one 0.1 Gm. tablet 1 to 3 times daily; for adults, one 0.1 Gm. tablet 1 to 3 times daily. Should be adjusted for each individual patient as determined by physician. **Sup:** In bottles of 100 and 1,000 tablets (0.1 Gm.).

Injection Bicillin 600, Wyeth, Inc., Philadelphia 2, Pa. For use where long-acting penicillin protection is desired. **Dose:** As determined by physician. **Sup:** In 1 cc. Tubex with sterile needle, containing 600,000 units N, N'-dibenzylethylenediamine dipenicillin G with 0.01% propylparaben and 0.09% methylparaben as preservatives.

Margel-MRT, Marvin R. Thompson, Inc., Stamford, Conn. New name for the product formerly known as Alumina Gel-MRT. New flavor added for better tolerance by patients.

Methium Chloride (125 mg.), Chilcott Laboratories, Inc., Morris Plains, N. J. In the treatment of essential and benign hypertension. **Dose:** As determined by physician. **Sup:** Now available in 125 mg. tablets as well as 250 mg. tablets in bottles of 100 and 500 tablets.

Neohydrin, Lakeside Laboratories, Inc., Milwaukee 1, Wisc. In congestive cardiac failure, recurring edema, hypertensive and arteriosclerotic heart disease, dyspnea, patients who object to the low-salt diet, and obesity complicated by fluid retention. **Dose:** As determined by physician. **Sup:** In bottles of 50 tablets.

Neo-Penil, Smith, Kline & French Labs., Philadelphia 1, Pa. In the treatment of those infections which respond to resposi-tory penicillin. **Dose:** Intramuscularly only, as determined by physician. **Sup:** In boxes of 10 vials.

Noctec, E. R. Squibb & Sons, New York 22, N. Y. Chloral hydrate solution for nocturnal sedation. **Dose:** One to 2 teaspoonfuls in ¼ to ½ glass of water 15 to 30 minutes before bedtime. **Sup:** In 1 pint bottles.

Novahistine, Pitman-Moore Co., Indianapolis 6, Ind. In the management of nasal congestion, spasmodic bronchial coughs and asthma, allergic rhinitis; in the symptomatic treatment of urticaria, pruritic dermatoses, angioneurotic edema, food allergies, serum sickness, etc. **Dose:** Adults—1 to 2 teaspoonfuls 3 or 4 times daily; children—½ to 1 teaspoonful. **Sup:** In 1 pint and 1 gallon bottles.

Sulestrex Piperazine Sub-U-Tabs Sulestrex with Methyltestosterone Sub-U-Tabs (formerly Sulestrex Piperazine Tablets) Abbott Labs., North Chicago, Ill. Combined hormone therapy. **Dose:** As determined by physician. **Sup:** Sulestrex Piperazine Sub-U-Tabs, 0.75 mg., in bottles of 100 and 1,000; 1.5 mg., in bottles of 25, 100 and 1,000. Sulestrex with Methyltestosterone sub-U-Tabs in three potencies in bottles of 25 and 100 tablets.

Testosterone with Estrone, Ayerst, McKenna & Harrison, Ltd., New York 16, N. Y. A suspension of androgen and estrogen for combined therapy by the intramuscular route, in osteoporosis and fractures in both sexes; dysmenorrhea; painful breast engorgement accompanying the suppression of lactation, the female and male climacteric in certain selected cases, pituitary dwarfism in young girls, acromegaly in both sexes, malnutrition in the female. **Dose:** As determined by physician. **Sup:** In vials of 10 cc. in boxes of 6.

Q.S.

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THE FIRST CLINICALLY PROVEN ENTERIC-COATED ASPIRIN

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ASTERIC Brewer is indicated in the treatment of certain rheumatic disorders requiring maximal dosage of aspirin over long periods. *"Enteric-coated aspirin (ASTERIC) has an analgesic effect equal to that of regular aspirin and the onset of its action is only slightly delayed."* Clinically it was shown that equal blood levels were obtained.*

ASTERIC Brewer (5 gr. enteric-coated Aspirin) will be found beneficial for those patients suffering from hemorrhagic gastritis resulting from the irritating effects of plain aspirin and for cases of peptic ulcer which require acetylsalicylic acid therapy.

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*Talkov, R. H., Ropes, M. W., and Bauer, W.: *The Value of Enteric Coated Aspirin.* N.E.J. Med. 242.19 (Jan. 5) 1950.

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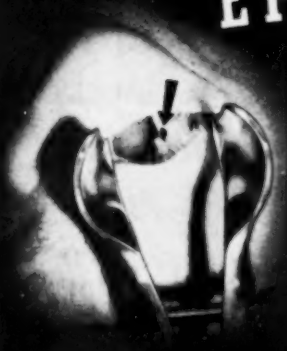
1. Waters, E. G., and Wager, H. P.: Amer. J. Obstet. & Gyn. 60:885, 1950.

EPISTAXIS!



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bibliography: (1) Cooperman, M.: J. Invest. Dermat. *13*:35, 1949. (2) Peck, S. M., and Michelfelder, T. J.: New York State J. Med. *50*:1934, 1950. (3) Soifer, A. A.: Quart. Rev. Int. Med. & Dermat. *9*:1, 1951. (4) Johnson, S. M., and Bringe, J. W.: Arch. Dermat. & Syph. *63*:760, 1951. (5) Hitch, J. M.: Clinical Appraisal of a New Antipruritic (N-ethyl-o-crotonotoluide), to be published. (6) Tobias, N.: G. P. *4*:43, 1951. (7) Domenjoz, R.: Schweiz. med. Wchnschr. *76*:1210, 1946. (8) Patterson, R. L.: South. M. J. *43*:649, 1950. (9) Pierce, H. E., Jr.: J. Nat. M. A. *43*:107, 1951. (10) Hand, E. A.: J. Michigan M. Soc. *49*:1286, 1950. (11) Tronstein, A. J.: Ohio State M. J. *45*:809, 1949.

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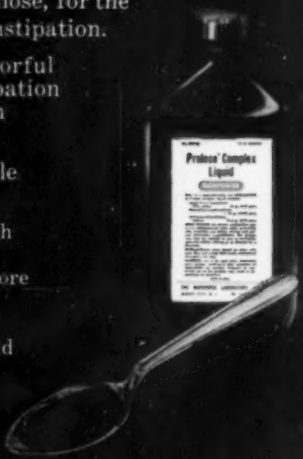

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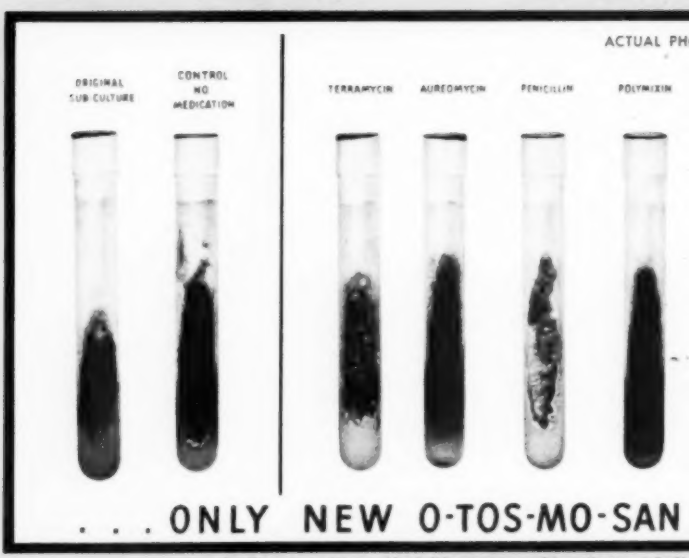
A TYPICAL CASE: OTOMYCOSIS IN POST-OPERATIVE MASTOID CAV
CAVITY AND SUBCULTURED TO MEDIA CONTAINING NEW OTOS



THERAPY—

A. Cleanse canal thoroughly of all fungus masses with applicators soaked i

B. Cauterize all granulations.

C. Pack canal to its depth with ¼ inch plain gauze saturated OTOSMOSAN. Instruct patient to add 10 drops of new OTOSMOSAN packing three times daily for the following two days.

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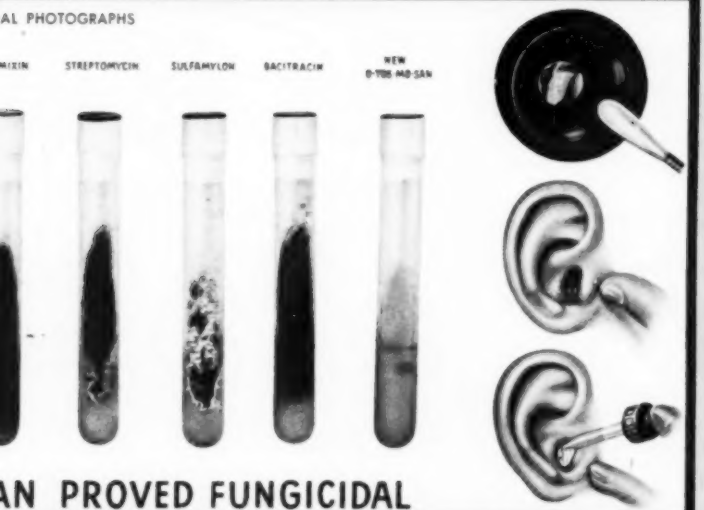


AN PROVED FUNGICIDAL

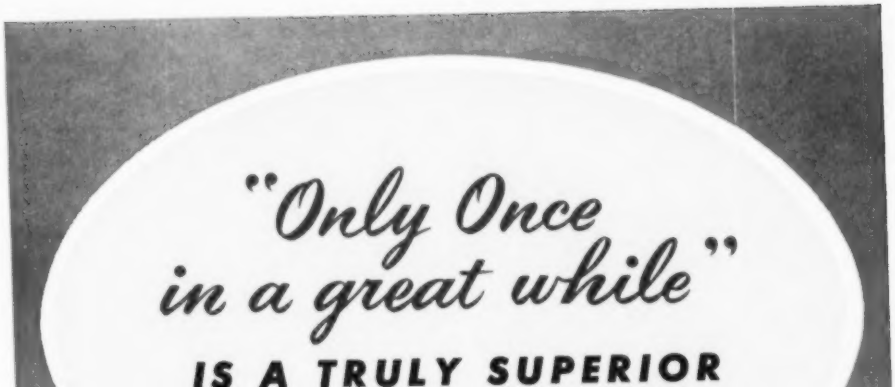
oaked in alcohol.

ated with new
OSAN onto the

D. Remove packing on the third day. Continue new OTOSMOSAN drops twice daily until the canal has returned to normal.

E. *Treatment during the dormant phase will eliminate these infectious spores, reduce the incidence and prevent recurrence.*

ur most stubborn cases, **the results will prove convincing.**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...after these simple steps:

1 *Remove plastic cap from syringe tip.*
2 *Remove blue cover from needle.*
3 *Attach needle to syringe.*
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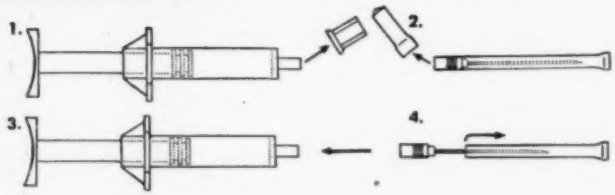

Antabuse In General Practice

J. A. SMITH, M.D.*
W. T. BROWN, M.D.**
Houston, Texas

Antabuse (tetraethylthiuram disulfide) has been recently made available for prescription use and is a very worthwhile adjunct in the treatment of chronic alcoholism. This drug was first introduced in 1948 by Hald, Jacobsen, and Martensen-Larsen. Hald noted that people who took this drug responded differently to alcohol than controls and defined this reaction as a "sensitization" to alcohol. It was also found that individuals taking Antabuse showed a blood acetaldehyde level from seven to ten times normal after they drank alcohol.

Later it was also shown that the "alcohol Antabuse" response could be duplicated by the intravenous injection of acetaldehyde. It was therefore concluded that the Antabuse in some way interfered with the metabolism of alcohol, and that due to this interference an increase in the blood acetaldehyde rapidly occurred, which produced the sensitization reaction.

This drug is fairly slowly absorbed from the intestine and is equally slowly excreted. It is believed that the liver is the organ responsible for the removal of the Antabuse after its absorption. Animal experimentation has failed to show any deleterious effects on the vital organs from the prolonged use of this drug. There is one report of decreased glomerular filtration without evidence of other kidney damage in dogs. In patients there has been no evidence of damage to either the kidneys or the liver in individuals taking this drug for several months. Antabuse apparently is well tolerated except when the individual taking this drug attempts to drink.

Administration and Dosage This drug is never used to sober up an alcoholic; it is only used to prevent his drinking. It should not be administered for at least one week following the time that the patient has had his last drink of alcohol of any kind. It is given orally and is dispensed in 7½ grain tablets. There have been several dosage schedules advocated; an easily remembered routine is to give one gram (2 pills) each day for four days and then ½ gram (1 pill) daily as a maintenance dose. Since the medication comes in half gram tablets, it can be administered after breakfast and supper for four days and subsequently once a day after the evening meal. This dosage may be further reduced to a half tablet (0.25 grams) daily at the end of the first month. If this is not sufficient to cause a reaction the dose is again raised to 0.5 gram.

After the individual has been taking Antabuse for seven to ten days, about two

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weeks are required before all of the Antabuse is excreted from the body and the danger of having a reaction is passed. Some individuals excrete the antabuse even more slowly and reactions have been observed as long as twenty days after the last Antabuse was taken when the patient took his first drink. The drug should be administered continuously for at least one year, and if after a year the patient again has trouble abstaining, the medication should be resumed.

During the first few weeks that the patient is given the drug, he should be observed at weekly intervals to watch for any untoward reactions from the drug itself. A drug eruption and transitory psychotic episodes have been reported but they have been seen infrequently; and as a rule, the psychotic reactions were in individuals with some preceding organic damage. Most patients say they sleep better while taking the drug, and many notice an increase in appetite with a consequent gain in weight during the first month. Gastrointestinal discomfort and headache are frequent complaints during the first two weeks, but disappear by the end of the first month in most patients.

Choice of Patients It is felt that Antabuse should not be given to any individual who shows gross evidence of organic brain damage; manifested by faulty recent memory, disorientation, or a tendency to confabulate. It is also contraindicated in patients with evidence of myocardial damage and in people who have diabetes mellitus. The danger in giving Antabuse to patients with myocardial damage arises from the fact that alterations in the electrocardiogram resembling ischemic change have been observed during the alcohol-Antabuse reaction; in one report, myocardial infarction occurred immediately after drinking. In view of the reported decrease in the glomerular infiltration rate in experimental animals, it would seem unwise to administer the drug to anyone with advanced kidney disease.

The actions of the drug should be thoroughly explained to the patient prior to the time he is placed on the medication. Since the burden of the responsibility for continuing to take the medicine lies with the patient, there is no purpose served by starting an individual on this drug if he is not desirous of stopping his drinking. This medication is of value in patients who want to stop drinking and need some outside help in accomplishing this end. Some patients, as a result of pressure from their families, or for some reason other than their own desire, will accept this medication, but they will substitute sedatives and become as habituated to barbiturates as they previously had been to alcohol. In such an instance, it seems wise to discontinue the Antabuse since no purpose is served in preventing their drinking if they are equally dependent on sedatives.

Psychotherapy Most alcoholics are reluctant to accept the idea that they drink for emotional reasons. They frequently are anxious, apprehensive and tense, and will benefit from talking with their physician and from his interest in them. The doctor should not condemn, moralize, or preach to the patient regarding his personal feelings about alcoholism. When the patient "slips" and drinks the physician should accept it as a deficiency in the treatment rather than a defect in the patient.

The Alcohol Antabuse Reaction There are varying opinions as to whether an individual placed on this medication should be tested with alcohol, in order to develop an aversion to drinking and to demonstrate the discomfort he will experience if he does imbibe. There has been no reported increase in favorable results from giving a test dose of alcohol. Therefore it would seem wise to avoid the extra hazards which are inherent in the reaction since the individual severity of the reaction cannot be predicted.

When an individual who is taking antabuse drinks alcohol in any form, he begins

to show a sensitizing reaction, within from one to five minutes. This is initiated by an injection of the conjunctivae followed by a marked flushing of the face, the neck, the upper chest and later the extremities. This "flush" is very marked, and the patient assumes the appearance of an extreme "sunburn". Accompanying the redness of the skin, there is a rapid increase in heart rate; in one reported series this increase averaged about 40 beats per minute. There is also a very marked hypotension which develops in the majority of the patients; this is more noticeable in the diastolic than in the systolic pressure. For instance, the systolic pressure may drop 20 or 30 millimeters of mercury, whereas the diastolic pressure may be unobtainable. The patients may or may not vomit (about half do), they may complain of shortness of breath, and a throbbing headache. They may give the clinical appearance of being in very profound shock, yet be so apprehensive as to constantly seek reassurance that they will recover. From the physical findings they are in shock, but they usually continue to respond and are mentally alert although they may feel "drunk" and appear intoxicated. During the height of the Antabuse-alcohol reaction, an ataxic gait and a coarse nystagmus are frequently observed.

This reaction continues for from 45 minutes to 2 hours and gradually subsides. After about 30 minutes the patient usually becomes drowsy and sleeps from one to two hours after the reaction is terminated. He may continue to feel drowsy and "hung-over" for 8 to 10 hours after the reaction. In view of the fact that two deaths have been reported in individuals several hours after the reaction had seemingly terminated, it would seem wise to keep the patient under observation for at least twelve hours.

It has been reported that ascorbic acid and oxygen are of some help in ameliorating the severity of the alcohol-Antabuse reaction. These findings have not been supported by all observations; but if the individual is in shock and appears to need some type of resuscitation, ascorbic acid 500 or 1,000 milligrams intravenously should be given along with oxygen, by nasal catheter or mask.

Summary

Antabuse is recommended as an adjunct in the treatment of chronic alcoholism. It is contra-indicated in individuals with advanced liver disease, kidney disease or a history of myocardial damage. Also it should not be given to patients with obvious organic brain damage since it is likely to further aggravate their deficiencies.

The drug is given by mouth, the dosage being 1 gram daily for four days with ½ gram as the maintenance dose. Drug eruptions and psychotic episodes have been reported in individuals taking this drug, and for this reason the patient should be observed at least at weekly intervals during the first few weeks after the medication is started.

In using this drug the burden of responsibility for continuing the medication in a prescribed manner rests with the patient. Therefore only those individuals who are interested in stopping their drinking are apt to do well with this method of treatment. The medication should not be given for at least one week after the time that the patient took his last drink of alcohol, and it should be explained to the patient that a reaction may ensue if he drinks during the first two weeks after he stops taking the drug. An alcoholic antabuse reaction is described and it is not recommended that a test dose of alcohol be routinely given; but it is strongly urged that the patient be advised on what will happen if he drinks during the medication.

Bibliography

1. Asmussen, E., Hald, J. and V. Larsen: The pharmacological action of acetaldehyde on the human organism. Acta Pharmac. Kob. 4:311-20, 1948.

2. Bennett, A. E., Mckeever, L. G. and R. E. Turk: Experiences with antabuse treatment of alcoholism in a general hospital. The Journal of Nervous and Mental Diseases. 112:5-393-399, 1950.

3. Darden, P., Smith, J. A., Brown, W. T.: Pharmacological studies with antabuse. American Journal Psychiatry. 108:701, 1952.

4. Greenberg, D. D. and L. A. Greenberg: The role of acetaldehyde in the toxicity of tetraethylthiuram disulfide and alcohol. Quarterly Journal of Studies on Alcoholism. Vol. 11, No. 3. 391-395, September, 1950.

5. Hald, J., and E. Jacobsen. A drug sensitizing the organism to ethyl alcohol. Lancet 2:1001-4, 1948.

6. Hald, J., and E. Jacobsen: The formation of acetaldehyde in the organism after ingestion of antabuse (tetraethylthiuram disulfide) and alcohol. Acta. Pharmac. Kbh. 4:305-10, 1948.
7. Hald, J., Jacobsen, E. and V. Larsen: The sensitizing effect of tetraethylthiuramsulfide (antabuse) to ethyl alcohol. Acta Pharmac., Koh. 4:285-96, 1948.
8. Hine, C. H., Anderson, H. H., Macklin, E., Burbridge, T. N., Simon, A. and K. M. Bowman: Some observations on the effects of small doses of alcohol in patients receiving tetraethylthiuram disulfide (antabuse). J. Pharmacology and Experimental Therapeutics: 98, No. 1. 13-14, January, 1950.
9. Jacobsen, E. and O. Martensen-Larsen: Treatment of alcoholism with tetraethylthiuram disulfide (antabuse). J.A.M.A. 139:918, 1949.
10. Jones, R. O.: Death following the ingestion of alcohol in an antabuse treated patient. Canadian Medical Association Journal, 60:609-12, 1949.
11. Smith, J. A., Darden, P., Brown, W. T.: The outpatient treatment of chronic alcoholism with antabuse. (In Press). American Practitioners Digest of Treatment.
12. Smith, J. A., Darden, P., Brown, W. T.: Treatment of chronic alcoholism with antabuse. Texas State Journal of Medicine. July, 1951.

Possible Polio Control Seen in Immunization Methods

It appears possible that methods of immunization now under study may provide a means of poliomyelitis control. Furthermore, a satisfactory method of drug treatment of the disease may become available, it was stated editorially in a recent issue of the *Journal of the A.M.A.*

One method involves the ingestion of a weakened polio virus, which it is hoped will result in a permanent immunity. However, there are three known types of polio viruses, and immunity to one does not protect the individual from the others. Only one type of polio virus has been made weak enough for testing purposes.

The other method is the injection of gamma globulin, a part of the blood, which, it is predicted, may result in a temporary immunity.

However, it was stressed, further investigation of the two new methods is necessary to substantiate their values.

Prevention of the transmission of polio virus is complicated by the fact that symptomless carriers and nonparalytic cases constitute most of the sources of virus in the population, the editorial stated, adding:

"As with most other virus infections, chemotherapy has as yet proved disappointing. At present, therefore, hope for the control of poliomyelitis appears to lie in immunization."

"Current studies support the belief that the alimentary tract is the main natural portal of entry of the poliomyelitis virus and that propagation may occur outside the nervous system," the editorial pointed out.

"When nonimmune monkeys are fed poliomyelitis virus, serum antibodies appear in the blood seven to 10 days later whether or not paralysis develops. Furthermore, virus can be isolated from the stools of symptomless human carriers or of nonimmune animals for many days after oral or intramuscular inoculation of the virus.

"Opinion has varied, however, as to whether the virus reaches the central nervous system via the peripheral nerves or via the blood stream."

Recently, polio virus has been isolated from the blood stream of orally infected animals between the third and seventh day after virus ingestion, before paralysis occurs, and before antibodies appear in the blood, the editorial said, adding:

"This suggests that after a period of propagation in the alimentary tract the virus may enter the blood stream, and thus reach the central nervous system.

"If these findings are confirmed in studies on human beings, it will be important to discover what determines the occurrence of actual invasion of the central nervous system, and what can be done to prevent such invasion."

Dizziness

This summarization attempts to cover the essential information on the subject, including therapy, and is designed as a time-saving refresher for the busy practitioner.

Dizziness is one of the commonest most confusing symptoms presented to the physician. Patients use various terms to describe what they mean by dizziness, e.g. faintness, unsteadiness, rocking, staggering, swimming, weakness, backward swaying, waviness, giddiness, light headedness, unsureness, etc. Either dizziness or vertigo may be considered to mean a turning sensation.

The complaint of dizziness indicates the patient is conscious of discord in his postural mechanism, that is, a disturbed sense of relationship to space. The physician seeks to determine why the patient is dizzy—but often ends up feeling very unsure of the diagnosis. A survey of 600 consecutive cases entering a large hospital revealed dizzines as a complaint of 10% of the patients.[20] The frequency of this complaint is probably even greater in a general practice.

A careful history and physical examination plus a few practical tests will usually be adequate for diagnosis. Most cases can be definitely grouped, but a small number will never be understood and require treatment on a trial and error basis.

Anatomy and Physiology Posture is maintained by coordination of information from the labyrinths, eyes, and muscles and joints. The information received from these sources is integrated in the consciousness. Failure of integration and/or conflicting information from the sensory sources results in dizziness. There is as yet no absolute single formula for determining the source of the dizziness. Much experimental work has been done to locate the exact nervous pathways used in the maintenance of equilibrium. It is not certain that information gained from animal experiments is exactly applicable to humans.

The anatomy of the labyrinth is generally well known and need not be reviewed in detail. Essentially it consists of two parts, the cochlea or organ of hearing, and the semicircular canals with the utricle and saccule or organ of equilibrium.

The eighth or acoustic nerve passes through the internal auditory meatus across the subarachnoid space (just above the flocculus) and almost directly medialward to the anterolateral surface of the medulla. It is divided into two parts, one serving the organ of hearing, the other that of equilibrium.

More attention will be given here to the less well known vestibular nuclei and their connections. There are four vestibular nuclei bilaterally. They are named the medial, the superior, the connecting inferior, and the connecting lateral. The vestibular nuclei are located in the cephalic end of the medulla and caudal part of the pons.

Crossed and uncrossed fibers pass from the lateral and medial vestibular nuclei through the medial longitudinal fasiculus to the abducens nucleus. From the superior nucleus fibers pass in the homolateral medial longitudinal fasiculus to the motor nuclei of the trochlear and oculomotor nerves. Thus it is seen how the interplay of sensory impulses governing posture may result in nystagmus.

The vestibular nuclei are intimately associated with neurons controlling muscles which effect the righting reflex.

Fibers from the lateral nucleus form the lateral vestibular spinal tract descending down the cord to synapse with ventral horn cells. From the lateral and medial nuclei crossed and uncrossed fibers pass to the motor nuclei of the cervical muscles in the medial vestibulo-spinal tract.

The medial vestibular nucleus sends short internuclear fibers to the dorsal efferent nuclei of the vagus. This explains reflex vomiting which may accompany discord in the postural mechanism.

Impulses from the vestibular nuclei pass to the cerebellum. Efferent fibers from the cerebellum, after partially decussating, cross the midline of the fourth ventricle and pass through the inferior cerebellar peduncle to the lateral vestibular nucleus. Thus the cerebellum exerts a regulatory effect on the nuclei.

Although nervous pathways have not definitely been established between the vestibular nuclei and cerebrum, it is believed by many that the cerebrum exerts considerable influence on equilibrium. This is especially well demonstrated clinically by patients with vertigo of psychogenic origin.

Etiology and Pathology The causes of vertigo are numerous. In some cases the exact etiology is in dispute. This is especially true of vertigo in Ménière's syndrome. Some investigators firmly believe the cause is a vitamin deficiency; others state that hydrolabyrinthitis of unknown etiology is the causative factor.

Inflammation, hemorrhage, thrombosis, embolism, toxic degeneration, and neoplasm involving the labyrinthine end organ all may cause vertigo. Vertigo may result from eighth nerve involvement by inflammation, tumor, or degeneration of unknown cause. The eighth nerve sometimes is involved as it crosses the cerebellopontine angle by tumors (meningioma the most likely), vascular conditions such as aneurysms and arteriosclerosis, infections (abscesses, granulomata, arachnoiditis), and platybasia.

The vestibular nuclei and cerebellum may be affected by hemorrhage or thrombosis (especially of the anterior and posterior inferior cerebellar arteries), multiple sclerosis, encephalitis and encephalomyelitis, neoplasm, and trauma (concussion, contusion, and laceration).

Tumors of the cerebral cortex may cause dizziness directly or by pressure effects. Epilepsy can be vertiginous.

Patients suffering from migraine headaches not uncommonly complain of some degree of dizziness. In some patients with an anxiety hysteria, vertigo may be the chief complaint.

Vertigo of ocular origin may occur. Usually it is the result of extra-ocular muscle imbalance, but occasionally it occurs with astigmatism and glaucoma.

Patients with lowered blood sugar frequently complain of vertigo. The hypoglycemia may be caused by pancreatic islet cell tumor or hypertrophy and hyperplasia of the islet cells, hepatic disease, pituitary hypofunction, adrenal hypofunction, surgery, low renal threshold, inanition, etc.

Dizziness sometimes occurs with focal infection of teeth, tonsils, paranasal sinuses, gallbladder, gastrointestinal tract, and of the prostate gland.

The toxic effects of the contagious diseases commonly cause a sensation of dizziness. Tobacco, methyl and ethyl alcohol, carbon monoxide, anesthetics, various industrial gases and many other noxious agents can result in dizziness. Other causes are certain drugs, for example, the barbiturates, dilantin, tridione, quinine, salicylates, chenopodium, streptomycin, and the gold salts. In patients with hypertension who are receiving barbiturates it may be necessary to stop the drug in order to decide whether the hypertension or the drug is responsible for the vertigo.

Vertigo in advanced age groups is fre-

quently on a basis of arteriosclerosis. When the vertigo appears suddenly and disappears rapidly, it is probably a result of a local vessel spasm superimposed on arteriosclerosis. Patients with hypertension not infrequently complain of some unsteadiness which probably results from an increase in pressure on the vestibular nuclei or end organ of equilibrium.

Psychosomatic dizziness occurs in anxiety states, hysteria, neurasthenia, neurosis, psychosis, hypochondria, and malingering.

Heredity may play a part in Ménière's syndrome.[5] Brunner[6] believes Ménière's syndrome is a result of a vasomotor labyrinthitis. Atkinson[2] firmly believes it is caused by a chronic vitamin deficiency—niacin, riboflavin, and thiamin.

Trauma to the head may result in vertigo due to central nervous system disturbance or the injury of the end organ by fracture of the bony labyrinth or hemorrhage within or into the end organ.

Anemia can produce enough hypoxia of the CNS to bring about dizziness; this is especially true of pernicious anemia.

Patients may frequently complain of dizziness during the menopause. Although such dizziness usually has no organic origin it deserves a careful evaluation for the presence of organic disease.

Motion sickness, of course, is a result of overstimulation of the end organ. There is a large emotional element associated with the reaction.

Diagnosis

I. History Since there are so many possible causes of dizziness, it is very important that a careful history and physical examination be done and the most helpful practical tests be used. If the physician knows the most useful questions to ask and how to interpret them correctly, he can save time for both his patient and himself. The physical examination and special tests may indicate one of the possible causes suggested by the history.

A. The Dizziness First the physician wants to know what the patient means by dizziness. Is there a true sense of motion? Does the room move around the patient or does the patient feel he is moving? Careful questioning is necessary; it is too easy to assume the patient means there is motion when he uses the word dizziness.

If with his eyes open the patient feels objects move around him and with them closed he seems to be moving, there is a true sense of movement. In such cases the field of investigation may be limited, for practical purposes, to the end organ, the eighth nerve, and the vestibular nuclei. If there is no true sense of movement, the whole body must be considered.

B. The Onset Does the dizziness start suddenly or gradually? If it be sudden, it is most likely an end organ disturbance. If the onset be gradual, the central nervous system (CNS) should be carefully investigated.

Is the onset preceded by deafness, tinnitus, or both? Such cases are usually due to end organ disease.

Does anything initiate the dizziness? Dizziness may occur only in certain positions of the head. In most such cases the cause is in the CNS. In patients with cardiovascular disease dizziness may occur on sudden change of position. Of course, dizziness with or following whirling movements is easily recognized as an exaggeration of the normal reflexes. In some people a sudden movement of the head may produce brief vertigo on a basis of exaggeration of the vestibular reflex. Dizziness may occur in darkness only in patients who for one reason or another depend much upon vision for maintaining balance.

C. The Duration How long does each episode last? Or is this the first episode? If so, how long has it lasted? Dizziness due to end organ lesions will usually occur

only once in the case of inflammation, hemorrhage, or thrombosis, but it is diagnostic of Ménière's syndrome that there are recurrent episodes of vertigo associated with progressive deafness. Dizziness following CNS concussion, contusion, or laceration may last a relatively long time.

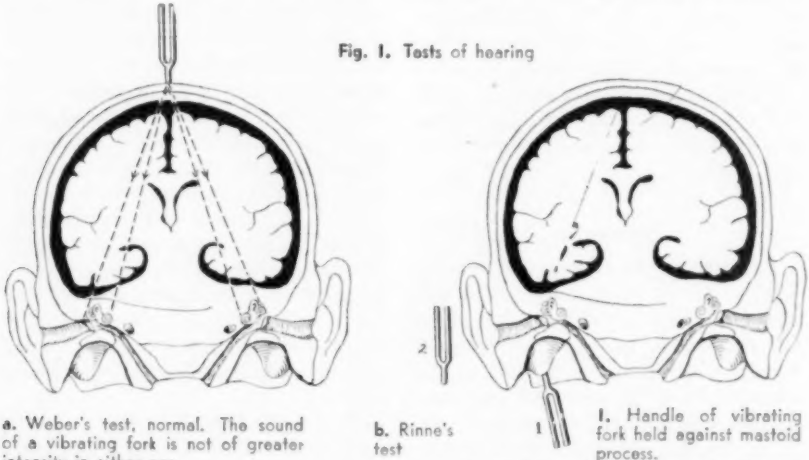
D. The Severity How severe is the dizziness? Is it accompanied by nausea and vomiting? Does prostration or unconsciousness occur? Ocular vertigo is usually very mild. Severe vertigo with nausea and vomiting in the absence of acute CNS disease points to an end organ lesion. Severe attacks of dizziness over a long period in the absence of deafness are suggestive of CNS disease. Severe vertigo accompanied by severe headache or by an increase in the severity of an existing headache also is suggestive of a CNS lesion. Loss of consciousness with attacks of vertigo is almost conclusive evidence of a CNS origin. In general the less severe forms of dizziness may be caused by disease anywhere in the body.

E. Modifying Factors Does anything relieve the vertigo? A patient who may not recognize position as a factor causing his vertigo, might recall that it is relieved by lying down, sitting in a certain position, etc. Patients with Ménière's syndrome or a labyrinthitis frequently gain partial relief by lying with the affected side down. Some patients may note that they have the dizzy spells when angry or feeling hostile; this is probably related to increased blood pressure. Others may suffer the dizzy feeling when very fatigued; this is possibly due to decreased blood pressure. In some cases vertigo is a symptom of a mentally ill patient and varies considerably in its occurrence, onset, duration, etc.

F. Age and Sex Dizziness is a more common complaint of the older age groups but in general the age and sex are of little value in the diagnosis. Since dizziness is a symptom and not a disease, it is logical that it will have the same age and sex distribution as the diseases of which it is a symptom.

G. Accompanying Symptoms and Signs Pallor, perspiration, and nausea are frequent accompanying findings, although the dizziness may be the only complaint. Vomiting occurs in the more severe cases. Deafness is the single most important ac-

Fig. 1. Tests of hearing



a. Weber's test, normal. The sound of a vibrating fork is not of greater intensity in either ear.

b. Rinne's test

1. Handle of vibrating fork held against mastoid process.

2. Vibrating prongs are brought flatwise before the meatus of the external ear.

companying symptom as far as diagnosis is concerned. The presence of deafness indicates a lesion of the end organs, the eighth nerve, or the temporal lobe of the cerebrum. The vestibular and cochlear nuclei are far enough apart in the brain stem to prevent them from being involved by a lesion which would not also involve the other cranial nerves. Vertigo without deafness occurs in trauma to the skull (concussion, contusion, laceration), multiple sclerosis (especially important if a young adult), neurosis, epilepsy, and postural vertigo. Vertigo with deafness but which is not a part of Ménière's syndrome occurs with acute labyrinthitis, chronic labyrinthitis, neurolabyrinthitis, otosclerosis, radical mastectomy, cerebellopontine angle tumor, and temporal lobe disease.

Tinnitus, weakness, asynergia, fainting, nystagmus, dyskinesia, hot flashes, and convulsions are other accompanying symptoms and signs.

II. Physical Examination The physical examination, of course, includes the usual careful search for evidence of general or local disease which may cause the dizziness. If the history and usual examination suggest the possibility of C N S disease, a complete neurological examination should be done. Special attention to the eyes and ears is indicated.

A. Eyes The eyes should be observed for nystagmus. A nystagmus which occurs only on lateral gaze may be physiologic. That which occurs spontaneously with the gaze straight ahead almost always has an organic cause. A vertical or diagonal nystagmus or a nystagmus in a different direction in the two eyes for practical purposes may be considered evidence of C N S disease. A fine nystagmus which may be seen only with an ophthalmoscope or after covering the eyes with +20 lenses is usually indicative of disease in the end organ, eighth nerve, or vestibular nuclei. Long lasting spontaneous second degree nystagmus is very suggestive of C N S disease; if this be a pure rotatory nystagmus, it is almost conclusive evidence of a C N S origin. An unchanging second degree nystagmus in the same direction which lasts longer than one week is almost always due to a C N S disturbance. Postural nystagmus (see "tests") is very suggestive of C N S pathology. A coarse slow nystagmus which is not influenced by position of the head and is increasing with time suggests a cerebellar lesion.

The eyes should be checked for muscle imbalance, astigmatism, and glaucoma.

The corneal reflexes should always be tested. The absence of a corneal reflex is one of the first and most consistent signs of a cerebellopontine angle tumor.

B. Ears A mild dizziness may be caused by impacted wax or a foreign body in the external auditory canal, retracted drums, and trauma to the middle ear; any of these may be detected by a simple speculum examination. In addition both the a u d i t o r y and equilibratory functions should be tested; minor degrees of deafness with vertigo have been discussed.

III. Useful Tests The history and physical findings guide the physician in his choice of tests. In difficult cases many tests, clinical and laboratory, may be necessary. The more practical tests are emphasized here.

A. CLINICAL PROCEDURES

1. Tests of Hearing. The use of an audiometer is the most accurate quantitative test of hearing. The instrument frequently is not easily available and other simple quantitative tests may provide the necessary information. In conductive type of deafness the bone condition is normal but air conduction is reduced; in perceptive type of deafness both bone and air conduction are decreased in relatively equal degrees.

a. Voice tests. In an average room a patient with normal hearing can hear the whispered voice at 20 feet. In a long narrow hall the distance may be doubled.

The patient is placed with the ear to be tested turned toward the examiner; the tip of a moistened finger should be placed in the meatus of the opposite ear.

b. Watch test. Poor test because watch has only one tone.

c. Weber's test. A tuning fork of low register such as a large A (108 frequencies) is needed for this test. The vibrating fork is placed in the midline of the skull (usually on vertex or forehead.) Normally the sound is not of greater intensity in either ear.

An ear with conduction type deafness will perceive the sound better than the normal one due to the increased bone conduction. If the patient has a unilateral perceptive type deafness, the sound will be perceived better in the normal ear.

d. Rinne's Test. A tuning fork with 425 frequencies is best for this test, but any fork in the range of 120 to 512 frequencies may be used. The handle of a vibrating fork is held against the mastoid process and the length of time the sound is heard determined. When the sound is no longer heard by bone conduction, the vibrating prongs of the fork are immediately brought flatwise, and within ½ inch of the meatus of the external canal, and the total time from onset of the test until no sound is heard is determined. This is the air conduction time. The bone conduction time normally will be about ½ that of the air conduction; this is called a "positive Rinne." When bone conduction time is longer than that of the air, the test is a "negative Rinne." If the bone conduction time is longer than the air, the procedure for the test is reversed, i.e. the air conduction time is determined first and the handle then placed against the mastoid process. A shortened air conduction time or diminished bone and air conduction times indicate perceptive type deafness. Prolonged bone conduction time, of course, indicates a conductive type deafness. The Weber and Rinne tests used together often will locate accurately a unilateral deafness.

2. Tests of Equilibrium. The usual tests of equilibrium are interpreted chiefly by the resulting hystagmus; thus the tests are more objective than those of hearing.

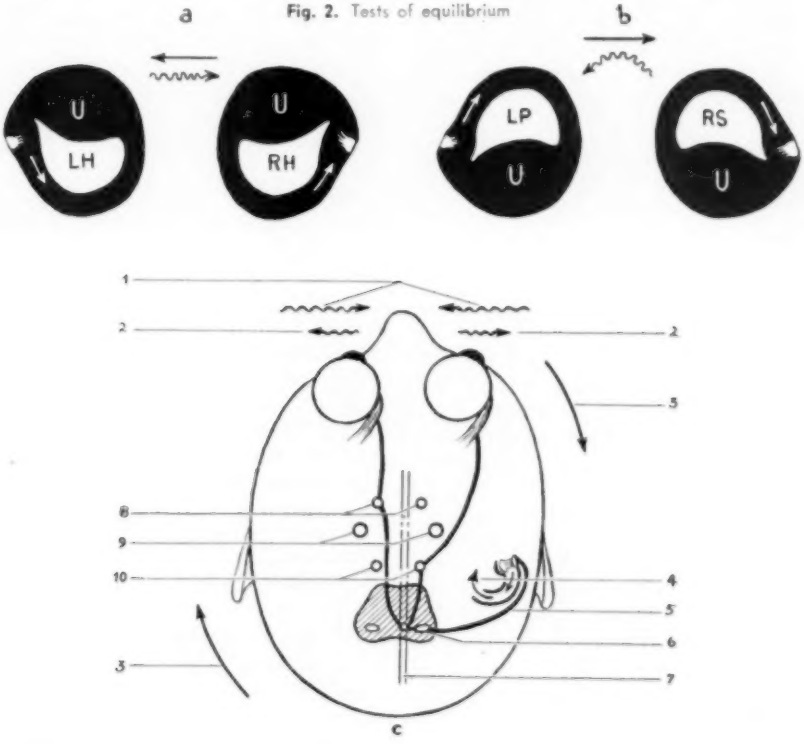
a. Turning Test. A turning chair is the only equipment needed. First the patient's head is tilted forward at a 30° angle. Then the chair is turned to the right 10 times in 20 seconds. Immediately the chair is stopped and the patient is directed to look at some distant object. Normally vertigo and a horizontal nystagmus to the left will occur. The test is repeated turning the patient to the left with a normal reaction causing vertigo and horizontal nystagmus to the right. This tests the lateral canals. Next the head may be inclined forward to a 90° angle and the superior canals tested in a similar manner.

b. Caloric Tests. The caloric tests have the advantage of testing one side of the head at a time. Techniques vary. Whatever technique is used, the interpretation will depend upon what the physician has observed to be normal for his own technique. A very simple method is described here. Contraindications to the caloric test are a perforated tympanic membrane and recent head injuries. About 60 cc. of water at room temperature (68°-70°F) are introduced slowly into the external auditory canal. The lateral and posterior canals are stimulated with the head held backwards at an angle of 60°. The superior (vertical) canal is stimulated with the head in an upright position. While the water is being introduced, the patient may be questioned about similarity of symptoms. This method has the advantage of giving the physician a true picture of the severity of the symptom (judged by the amount of water required to produce the same sensation plus the nystagmus). It has the advantage also of causing minimal nausea; technics using ice water frequently cause the patient much nausea

and vomiting which upset both him and the doctor's office.

3. Fistula Test. Compression and rarefaction of the air in the external auditory canal may produce vertigo and nystagmus. Compression of the air would produce nystagmus to one side, rarefaction to the other side. Some otoscopes have a nipple opening for attachment of a rubber bulb for doing this test. Other

Fig. 2. Tests of equilibrium



a. Upright head, straight arrow shows rotation of the body to the left, the wavy arrow shows nystagmus to the right after rotation is stopped.
b. Head 90° forward, straight arrow shows rotation of the body to the right. The wavy arrow shows nystagmus to the left after the rotation is stopped.
c. Diagrom after Morrison illustrating one of the laws (Flouren's) governing the production of nystagmus. Horizontal plane rotation of the head results in
1. Nystagmus with slow component in the direction and plane of the endolymph movement.
2. Nystagmus with quick componenr in plane of but in opposite direction to the endolymph movement.
3. Direction of head rotation.
4. Direction of movement of endolymph in horizontal semicircular canals.
5. Vestibular nerve.
6. Vestibular nuclei.
7. Posterior longitudinal bundle.
8. Nuclei of third cranial nerves.
9. Nuclei of fourth cranial nerves.
10. Nuclei of sixth cranial nerves.

methods can be devised.

4. Test for Positional Nystagmus. This is a relatively new procedure. Positional nystagmus (P N), if present, has been found to be a valuable diagnostic aid. Positional nystagmus is a nystagmus which is altered in one way or another by the position of the head. In general the nystagmus produced by change of position is of greater amplitude than that resulting from caloric stimulation.

Nystagmus per se is those oscillations of the eyes which are involuntary and which are described in the following terms:

Degree. First degree nystagmus occurs only on deviation of the eyeball in the direction of the nystagmus.

Second degree nystagmus occurs not only on deviation of the eyeball in the direction of the nystagmus but also when the eye is directed to the front.

Third degree nystagmus occurs when the eyes are directed toward the direction of the slow component as well as in the positions for second degree.

Direction. The direction is described as toward the quick component of the oscillation. It is further described as horizontal, vertical or rotary.

Amplitude. The oscillations are described as coarse or fine.

Regularity. It is of regular or irregular rhythm.

Association. The movements are associated if both eyes move together, dissociated if they move independently. The actual checking of the patient for P N requires but a few minutes and requires no unusual apparatus. An examining table and a pair of high diopter glasses are all that is needed, and in many cases the glasses are not essential. The glasses are used to overcome any compensatory power of fixation which might decrease or alter the nystagmus. Good lighting, of course, is essential.

It may be necessary to repeat the test on a couple of office visits before P N is elicited. The relationship of the head and rest of the body should be maintained the same in all positions and movements. The position changes should be made slowly, and the direction of gaze be front. The eyes should be observed for nystagmus for 5-10 seconds in each new position; the onset of nystagmus may be sudden or slow. It is wise to record briefly the positions nystagmus occurs in, the direction, and the duration; thus one has an accurate reference for evaluation and future comparison.

Start with the patient in the supine position. Then have him move to his right side, return to supine, next the left side and then supine again. Have the patient move up on the table so his head hangs over the head of the table. Again check for nystagmus with head anterior, to the right, anterior, to the left, and back to anterior. Then observe his eyes after sitting up from the supine, stooping forward, and again sitting up.

5. Carotid Sinus Compression. External compression over the carotid sinuses may cause dizziness.

B. INTERPRETATION OF CLINICAL TESTS

1. Tests for Hearing. Positive evidence of impaired hearing is very useful information. The damage to the hearing end organ (cochlea) frequently parallels that to the end organ of equilibrium. If evidence for cochlear dysfunction is lacking, it is a good general rule to do a complete neurological examination.

2. Tests for Equilibrium.

a. Turning Test. If the nystagmus lasts more than 40 seconds or the reaction is abnormal in some other way, assume a lesion in the stimulated canals.

b. Caloric Tests. Abnormal reactions to these tests in general indicate lesions of the canals stimulated. A C N S lesion may cause the absence of the reaction in both the vertical and horizontal canals on one

side but in just the vertical on the other side.

3. Fistula Test. In cases of a fistula between the labyrinth and middle ear or in some cases of congenital syphilis without a fistula this test may be positive, i.e. produce nystagmus and vertigo. A fistula is present in most cases of circumscribed labyrinthitis. In most instances a circumscribed labyrinthitis is secondary to a cholesteatoma of the attic of the middle ear.

4. Positional Nystagmus. P N may be divided into two groups: (1) Those in whom the direction of the nystagmus changes with changes in position of head. (2) Those in whom the direction of nystagmus does not change with changes in position of the head.

The presence of P N may be considered positive evidence of organic disease. Cases which fall in group (1) are usually due to a C N S lesion—frequently cerebellar tumor or multiple sclerosis. Those in group (2) may be due to disease of either the end organ, the eighth nerve, or the C N S

5. Carotid Compression. Some persons suffer from the carotid sinus syndrome. The carotid sinus mechanism is hypersensitive in these individuals making them subject to paroxysms of dizziness and fainting. Between attacks only slight pressure will cause a morbid depressor reaction, i.e., a drop in blood pressure and pulse and even dizziness and syncope.

C. LABORATORY TESTS

Routine C.B.C., U.A., sed. rate, and Wassermann tests may be generally helpful. Other laboratory tests, of course, should be done as indicated.

D. X-RAYS

A routine chest x-ray is suggested. Further roentgenography should be done as indicated by the findings of each case. Detailed views of the skull showing the internal auditory meati, petrous ridges and sinuses are often helpful.

Differential Diagnosis So many causes of dizziness are found that it is wise to try grouping them. The findings of the history, physical examination and tests may then be used to place a particular case in one group, thus facilitating the diagnosis.

The first step in grouping is deciding whether dizziness is a symptom of organic or psychic disease. Doubtless a great many patients will complain of dizziness who have no organic disease. This adds much to the doctor's burden of decision. Dizziness on a psychic basis may follow deep or arrhythmic breathing. The caloric tests usually show hyperactive responses.

If evidence indicates dizziness on an organic basis, the possibilities may be divided into two main groups:

I. Disturbance originating in the C N S
II. Disturbance originating in a peripheral organ (labyrinth, eighth nerve, and eye).

I. DISTURBANCE ORIGINATING IN THE CNS.

This group may be subdivided into six subgroups:

1. Proprioceptive
2. Hypoxic
3. Metabolic
4. Inflammatory
5. Neoplastic
6. Traumatic

1. *Proprioceptive.* The most important diseases affecting the proprioceptive system are pernicious anemia, pellagra, and tabes dorsalis. In most cases other symptoms will be present to effect the diagnosis.

2. *Hypoxic.* Cerebral oxygen deficiency is one of the most common causes of dizziness, regardless of how it is produced. Arteriosclerosis and hypotensive cardiovascular disease are common causes of transient cerebral hypoxia which produces

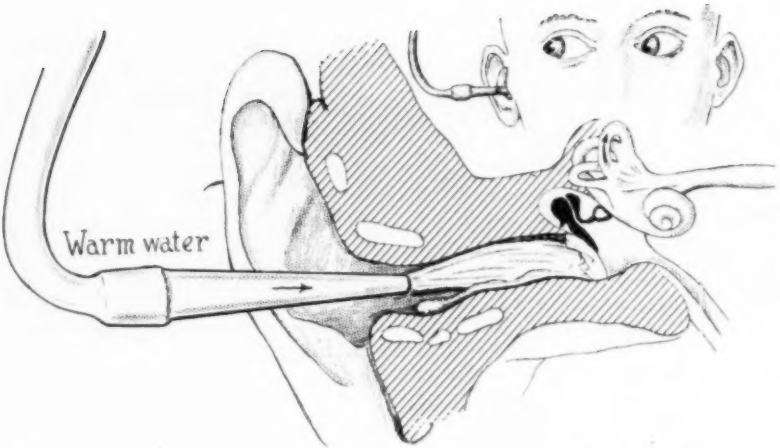


Fig. 3.
Caloric Tests

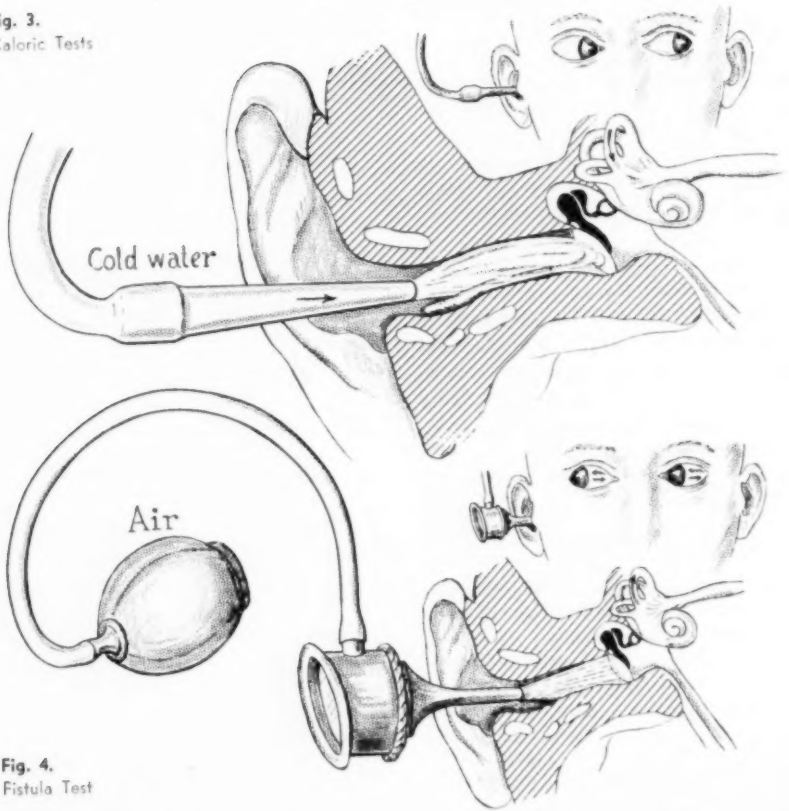


Fig. 4.
Fistula Test

a feeling of mild dizziness without a sense of motion. Postural hypotension, also a common cause of cerebral hypoxia, produces a mild dizziness when the patient rises suddenly from a recumbent or sitting position to a standing position. Any anemia may produce transient cerebral hypoxia. The routine C B C is, of course, designed to uncover this etiology.

Paroxysmal fibrillation, aortic stenosis with insufficiency, attacks of arteriosclerotic heart disease (Adams-Stokes lesion), or carotid sinus hypersensitivity may cause sudden and more than transient cerebral hypoxia. A careful history and physical will differentiate them from Ménière's syndrome and other causes.

Cerebral apoplexy may cause dizziness on a basis of hypoxia, but other symptoms will be more obvious and diagnostic.

3. *Metabolic.* Hypoglycemia may produce a paroxysmal dizziness. Anytime a patient associates hunger with his dizziness hypoglycemia should be considered and a fasting blood sugar and glucose tolerance will usually be necessary to establish such a diagnosis. The hypoglycemia may be a result of hyperinsulinism secondary to a pathologic change in the pancreas, hepatic disease, pituitary dysfunction, adrenal cortical hypofunction, hypothalamic lesion, functional hyperinsulinism, renal glycosuria, lactation, etc.

Adrenal tumor (medullary) may cause paroxysmal hypertension. Parathyroid insufficiency may cause dizziness (secondary to thyroidectomy). Dizziness sometimes is associated with migraine headaches.

Multiple sclerosis may cause vertigo of sudden onset. It usually occurs in patients of a younger age group than those with cardiovascular disease. Patients with multiple sclerosis will often have a central scotoma, intention tremor, spastic ataxic gait, and absent abdominal reflexes.

4. *Inflammatory.* Meningitis, encephalitis, and C N S lues may frequently produce dizziness. They are mentioned chiefly for completeness, since other symptoms and signs will indicate the diagnosis. Brain abscesses and granulomas may cause dizziness due to location or to pressure. Diagnosis is frequently very difficult, much depends on a good history, and often other symptoms overshadow the complaint of dizziness.

5. *Neoplastic.* Dizziness may be one of the earliest evidences of increased intracranial pressure. Tumors of the cerebellum often cause unsteadiness described by the patient as dizziness; this is especially true when the inferior vermis is involved. Tumors infiltrating or destroying the vestibular nuclei, of course, can cause dizziness as one of the first complaints. Cerebral involvement before causing increased pressure may earlier give the patient a sense of instability. Temporal lobe lesions may produce partial perceptive type deafness. The differential diagnosis of neoplastic C N S disease depends chiefly on the neurological examination and special studies such as pneumoencephalograms, electroencephalograms, and ventriculograms. Most practitioners will refer patients suspected of a C N S neoplasm to the specialist.

6. *Traumatic.* Post-traumatic vertigo may last a long time (concussion, contusion, and laceration). It may be associated with headache, emotional tension, fatigue, impaired memory, tinnitus, and impaired hearing.

II. DISTURBANCE ORIGINATING IN A PERIPHERAL ORGAN.

This group may be subdivided into the following seven subgroups:

1. Toxic
2. Inflammatory
3. Hydropic
4. Neoplastic
5. Traumatic
6. Vascular
7. Ocular

Dizziness of peripheral organ is usually a true whirling sensation.

1. Toxic. Dizziness often follows an acute febrile disease, food or alcohol indiscretion, and the use of any type of drug. The patient experiences a whirling sensation without an associated tinnitus or impaired hearing. The height of the dizziness occurs within two to three days and typically is followed by gradual improvement. The affliction is called acute toxic labyrinthitis. Use of the word toxic in this case is admission of ignorance. There are, however, certain specific toxic causes of vertigo. Streptomycin is the most important of these.

2. Inflammatory. Involvement of the labyrinth by syphilis, tuberculosis, or extension of an infection of the middle ear, mastoid, cholesteatoma or meninges may cause marked dizziness, deafness, nausea and vomiting. Symptoms of the original infection are the key to diagnosis.

3. Hydropic. Ménière's syndrome or hydrops of the labyrinth has become a "wastebasket" for dumping all cases of paroxysmal vertigo. Much controversy occurs among physicians about the syndrome. The following criteria should be used: (1) There must be paroxysmal attacks of whirling dizziness, usually with an abrupt onset, frequently with nausea and vomiting, lasting hours but not days, and with freedom from dizziness between attacks. (Thus the diagnosis cannot be made on a basis of one attack of dizziness.) (2) There must be an accompanying perceptive type hearing loss, commonly fluctuating, almost always progressive, and usually more severe in one ear. (3) There must be an accompanying tinnitus, most often persistent between attacks and frequently fluctuating.

4. Neoplastic. Cerebellopontine angle tumors often cause vertigo due to pressure on or destruction of the eighth nerve. It is especially important not to miss diagnosis of these tumors because many of them are curable, the most common being a meningioma. Homolateral loss of the corneal reflex is an early and almost constant finding. Tumors of the temporal bone may erode the labyrinth to produce dizziness; a skull x-ray may be diagnostic.

5. Traumatic. Fractures of the temporal bone may cause a labyrinthine disturbance. Blows to the head sometimes result in hemorrhage into the end organ.

6. Vascular. Thrombosis, hemorrhage, and spasm involving the labyrinthine vessels can produce dizziness. Patients with arteriosclerosis, hypertensive cardiovascular disease, and other less common vascular diseases, of course, are most commonly subject to this type of dizziness. Diagnosis is based on the presence of a vascular disease, but other causes of dizziness must first be ruled out.

7. Ocular vertigo is usually mild. The nystagmus is typically rotatory, in almost any direction, slow, coarse, irregular, and dissociated but not positional.

Treatment Obviously treatment should be based upon a correct diagnosis with removal of the cause or alleviation of the symptom being the prime objectives. In some cases immediate symptomatic treatment is desirable to alleviate severe vertigo and associated symptoms such as nausea and vomiting. Other cases may be intractable to usual therapy and require radical treatment. In a certain number of patient treatment will always be a matter of trial and error.

Symptomatic Therapy. In patients not suffering from Ménière's syndrome Dramamine in doses of 25 to 100 mg. q.i.d. is often very helpful. It should be used as a palliative measure while the etiology is being sought or for cases in which the etiology cannot be found. Dramamine has a very low toxicity. It is successful in mild cases of Ménière's syndrome.

Patients with dizziness on a basis of cardiovascular disease, especially hypertension, are sometimes relieved by use of 50 mg. of nicotinic acid q.i.d.

Dramamine in doses of 50 to 100 mg. q.i.d. may be used prophylactically for

patients who suffer from motion sickness.

Pyridoxine (B6) in daily doses of 100 mg. i.v. or in divided oral doses is useful in some cases of dizziness of undetermined origin.

Sodium Luminal in dosages of three to five grains given hypodermically to patients suffering dizziness following use of an anesthetic agent is frequently very satisfactory treatment.

For patients suffering an attack of Ménière's syndrome with nausea and vomiting 150 mg. of Mosidal plus 250 mg. riboflavin i.v. given as soon as possible after onset may offer considerable relief. If nausea and vomiting are absent, the medications can be taken orally.

Intractable vertigo. Some patients with violent attacks of Ménière's syndrome do not respond to any of the usual types of therapy. For these patients destruction of one or both labyrinths may be necessary. Avulsion or electrocoagulation of the membranous horizontal semicircular canals, surgical resection of the eighth nerve, or use of streptomycin in large doses may be carried out.

Ménière's Syndrome. Atkinson suggests the use of vitamins for the definitive treatment of this condition. He separates the patients into three groups on a basis of their reactions to a histamine wheal test. (See *Med. Times* 1951, 79:255)

Prognosis

It is not possible to make a definite prognosis in many cases of vertigo. This is especially true of Ménière's syndrome. In this condition attacks may cease spontaneously for months or years according to Brunner.[6]

In cases of acute or toxic labyrinthitis the prognosis for complete recovery from the vertigo is excellent; in those cases with associated hearing loss, the cochlear function is more susceptible to suffering irreversible damage than the vestibular.

In general the earlier the etiology of the dizziness is discovered, the better the prognosis. Early diagnosis depends on the physician.

References

1. Altmann, Franz, Fowler, Jr., E. P. Histologic findings in Meniere's symptom complex. Ann. Otol., Rhin., and Laryng. 1943, 52:52-80.
2. Atkinson, Miles. Meniere's syndrome. Arch. Otolaryng., 1950, 51:312-315.
3. Atkinson, Miles. Meniere's syndrome. Arch. Otolaryng. 1950, 51:149-164.
4. Atkinson, Miles. Meniere's syndrome. Med. Times 1951, 79:255-264.
5. Brown, M. R. The factor of heredity in labyrinthine deafness and paroxysmal vertigo Ann. Otol. Rhin. and Laryng., 1949, 58:663-670.
6. Brunner, Hans. Meniere's attacks and Menniere's disease. J. Laryng. & Otol. 1950, 64:103-124.
7. Cranmer, Reed. Nystagmus related to lesions of the central apparatus and cerebullum. Ann. Otol. Rhin., and Laryng. 1951, 60:186-196.
8. DeWeese, D. D. Evaluation of dizziness. J.A.M.A., 1950, 142:542-546.
9. Fletcher, Russell. The finding of positional nystagmus in the dizzy patient. 1950, 60:532-542.
10. Ford, F. R. A clinical classification of vestibular disorders. 1950, 87:299-304.
11. Fowler, Jr., E. P. Streptomycin treatment of vertigo. Trans. Am. Acad. Ophthal. & Otolaryng., 1948, March-April, pp. 293-301.
12. Furstenberg, A. C. Summation Symposium on vertigo. Ann. Otol. Rhin., & Laryng., 56:576-582.
13. Gay, L. N. Prophylactic and therapeutic control of vestibular disturbances with dimenhydrinate. J.A.M.A., 1951, 145:712-715.
14. Goldman, I. R., Stern, N. S., Stern, T. N. The use of dramamine in vestibular disturbances complicating hypertensive and arteriosclerotic heart disease. Am. Heart J., 1951, 42:302-307.
15. Harrill, J. A. Headache and vertigo associated with hypoglycemic tendency. 1951, 61:138-145.
16. Juers, A. L., Derlacki, E. L., Shambaugh, D. E. Chronic progressive deafness, including otosclerosis and diseases of the inner ear. Arch. Otolaryng., 1950, 51:422-437.
17. Kulby, R. A. Ocular vertigo. Am. J. Ophthalm., 1951, 34:290-292.
18. Kodicek, J., Taylor, L. R., Bateman, G. H. The medical treatment of Meniere's disease. 1949, 64: 647-666.
19. Lathrop, F. D. Surgery of Meniere's syndrome: evaluation of neurosurgical and otologic procedures. Ann. Otol. Rhin. and Laryng., 1949, 58:809-824.
20. Levy, Irwin, O'Leary, J. L. Incidence of vertigo in neurological conditions. Ann. Otol., Rhin., and Laryng., 56:527-575.
21. Lewy, Alfred, Fox, Noah. Pyridoxine (B6) used in the treatment of vertigo. Arch. Otolaryng., 46: 681:683.
22. Lewy, A. L. The symptomatology of vertigo. Ann. Otol., Rhin., and Laryng., 56:534-540.
23. Lindsay, J. R. Pathology of vertigo arising from the peripheral vestibular apparatus. Ann. Otol., Rhin., and Laryng., 1947, 56:556.
24. Lindsay, J. R. The significance of a positional nystagmus in otoneurological diagnosis. Laryngoscope, 1945, 55:527-551.
25. McKenzie, William. Aural vertigo: an account of certain cases resembling Meniere's disease. J. Laryng. & Otol., 1951, 65:70-88.
26. McNally, W. J. The physiology of the vestibular mechanism in relation to vertigo. Ann. Otol., Rhin., & Laryng, 1947, 56:514-534.
27. Northington, Page. Syndrome of bilateral vestibular paralysis and its occurrence from streptomycin therapy. Arch. Otolaryng., 1950, 52:380-396.
28. Nylen, C. O. Positional nystagmus. J. Laryng. & Otol. 1950, 64:295-318.
29. Pratt, L. W. Dizziness and vertigo in daily practice. J. Maine Med. Ass., 1951, 42:55-57.
30. Rachlis, Burech. Meniere's syndrome. 1950, 52:373-379.
31. Spiegel, E. A., Scala, N. P. Vertical nystagmus produced by peripheral labyrinthine lesions. Arch. Otolaryng., 40:160-163.
32. Williams, H. L., Horton, B. T., Day, L. A. Endolymphatic hydrops without vertigo. Arch. Otolaryng., 1950, 51:557-581.

A Simplified Technique For Nailing Femoral Neck Fractures

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The age group of patients in which this common fracture occurs has caused surgeons to be on the alert for improved methods of operative technique. Most surgeons agree that the least amount of surgical manipulation and tissue derangement to accomplish physiological end results is the most advantageous. Over a period of years many operators have introduced various techniques and prosthetic devices, all of which have their advantages and disadvantages. The advent of the various bacteriostatics, blood banks, ease of intravenous medications, and early ambulation of these patients has noticeably improved the end results of all techniques. Cleveland and Baily, 1950, in their article on intracapsular fractures of the neck of the femur over a period of eighteen years, have presented a very careful evaluation of their results.[1]

The various techniques and devices used can be compared as to the actual size in Figure 1. I believe that displaced bone tissue secured by the fixing device is of great importance in this area. The least amount of bone tissue destroyed or displaced without sacrifice of support by the fixing device is sound anatomical and physiological logic. The introduction of a single Moore nail attached to a Sherman Vanadium bone plate No. 2 satisfies these requirements. I believe this device has the advantage of less foreign body by volume and, therefore, there is less bone destruction and displacement of bone tissue. This in turn has the advantage of less circulatory disturbance and aseptic necrosis. The technique is a very simple procedure as it is easy to introduce a single nail of small size. It is time saving and can be accomplished under a local or spinal anesthetic. In this age group a short, simple, operative procedure has the advantage of less shock and less complicated postoperative course.

The angle of introduction of the Moore nail is most important. Poborsky, 1943, Wellmerling, 1944, Hardinge, 1950,[2, 3, 4] and others have emphasized the advantages of oblique or more vertical nailing. Figure 2 reveals the architecture of the cancellous bone of the head and neck of the femur. It will be observed that the lines of stress and tension are compensated for by the thickening of bone in the inferior cortex of the neck. The force pressing the fractured fragments together is greater in this area and, therefore, if the nail is introduced in a more oblique or vertical plane the middle shaft will rest on the thickened inferior cortex of the neck and its distal end will rest in the thick lateral cortex of the shaft. The proximal end of the nail will rest in the cancellous bone of the head of the femur with the greatest holding force. In using a single small nail as the fixation device, the above technique insures against bending of the nail or

failure to secure the apposition of the fractured fragments. Figure 3 illustrates this technique in model form.

Case No. 679

A 40-year-old white male admitted to the hospital on February 15, 1949.

Family History Father died at the age of 80 of heart disease.

Mother died at the age of 69 of cerebral hemorrhage.

Two brothers, ages 44 and 50, living and well.

Four sisters, ages 47, 53, 56, and 59, living and well.

Two sisters, dead; one died at age 35 with carcinoma of uterus, one died at age 40 during childbirth.

Past History Usual childhood diseases with good recovery.

Fig. 1
A. Moriera Screw
B. Smith-Peterson nail
C. Moore multiple fixation nails
D. Neufeld Femoral nail plate
E. Single Moore Nail, Sherman Vandium steel bone plate, and two Sherman Vanadium steel screws. Comparison of the size of various fixation devices in relationship to placed bone volume.

Fracture of right clavicle, 1940, healed well.

Chief Complaint 1. Pain, severe, left hip—2 hours. 2. Inability to use left leg—2 hours.

Onset and Course The patient states that he slipped and fell on the ice striking his left hip on a frozen rut in the road. He experienced severe pain in the upper left leg and hip and found he was unable to use his left leg. Any or all movement of the left leg or hip caused excruciating pain.

Physical Examination The physical examination reveals a well developed, well nourished, 40-year-old white male, who appears to be in acute pain.

Head and Neck—Normal.

Chest—Inspection, palpation, percussion, and auscultation essentially negative.

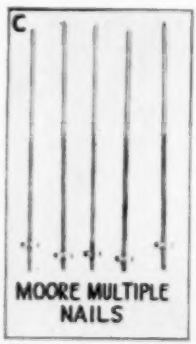
Heart—Borders: Normal Limits. Rate: Tachycardia—88. Rhythm: Regular. Murmurs: None.

Abdomen—Inspection, palpation, percussion, and auscultation essentially negative.

Lumbar Areas—Essentially Negative.

Rectal Examination—Essentially Negative.

Extremities—Upper: Essentially Negative. Lower: There is an obvious outward rotation of the entire left lower extremity. Excruciating pain of the left hip is experienced on manipulation of the left extremity. There is point tenderness on



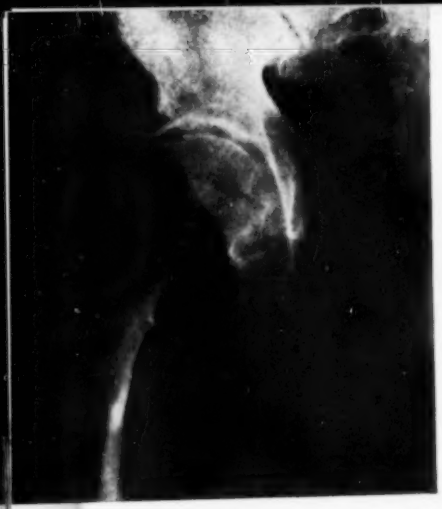


Fig. 2. Roentgenogram revealing the architecture of cancellous bone of the head and neck of the femur.

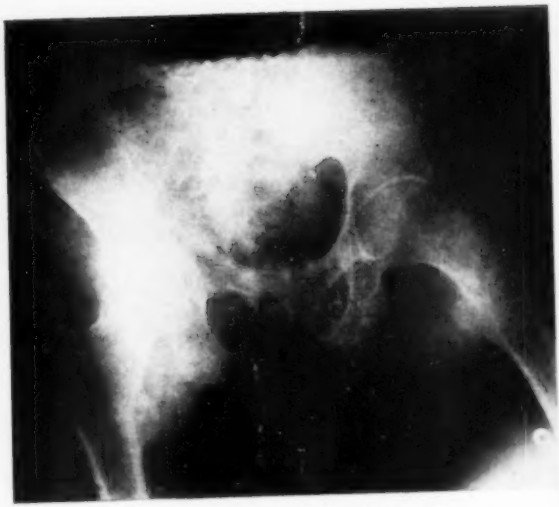


Fig. 4. Case No. 679. Roentgenogram of the pelvis in AP projection revealing comminuted cervico-trochanteric fracture of the left femur.

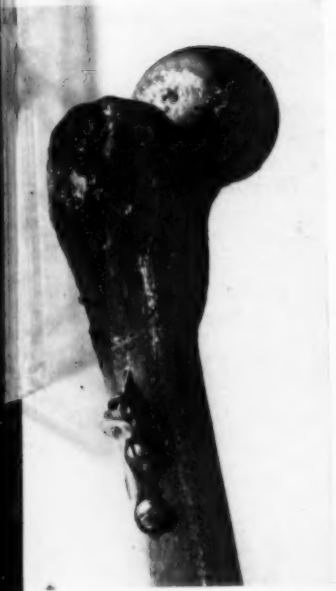
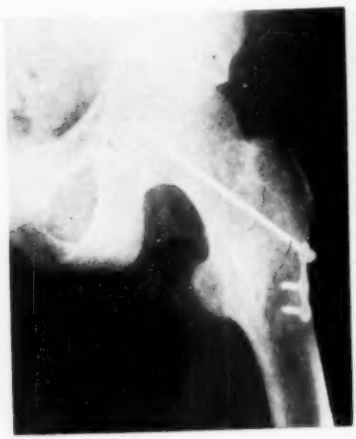


Fig. 3. (left) Model of a femur with the single Moore stainless steel alloy nail, Sherman Vanadium steel bone plate No. 2, and Sherman Vanadium steel screws in position.

Fig. 5. Case No. 679. Roentgenograms of the left femur after surgical introduction of the Single Moore stainless steel nail, Sherman Vanadium steel bone plate No. 2, and two Sherman stainless steel screws. **A** (left) anterior-posterior projection, **B** (right) lateral projection.



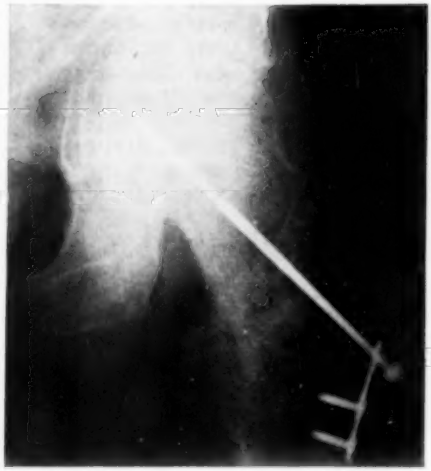


Fig. 6. Case No. 679. Roentgenogram of the left femur in the anterior-posterior projection six weeks after surgery.

palpation of the area over the greater trochanter of the left femur.

Laboratory Findings—Blood Count:

R. B. C. 3,500,000
W. B. C. 16,000
Hb. 11.3 gm.
Hema. 44
Color Index 96
Schilling:
Segs. 84
Lymphs. 16
Coagulation Time 2:28
Bleeding Time 12"
Blood Kahn: Negative
Urinalysis: Color—Clear
Reaction—pH 6
Character—Clear
S. G.—1.026
Albumin Negative
Sugar—Negative
WBC—2-3

X-Ray Report A roentgenogram of the pelvis in the AP projection shows a comminuted cervico-trochanteric fracture of the left femur. The relationship of the major fragments is good except for some external rotation of the distal fragment. (Figure 4)

Surgical Technique

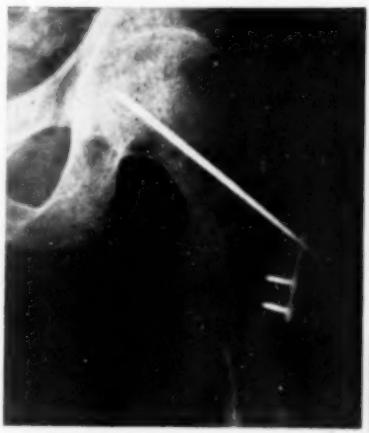
Preoperative Diagnosis: Comminuted cervico-trochanteric fracture of the left femur.

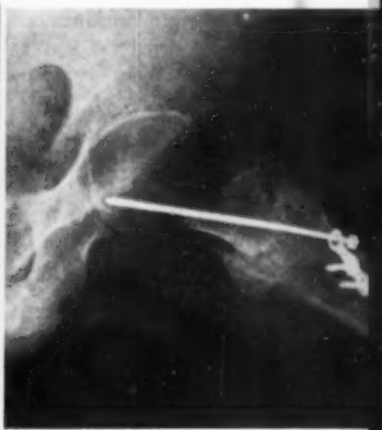
Anesthetic:

Drop Ether.

Surgical Procedure An incision of approximately fifteen centimeters beginning at the greater trochanter area and extending down the lateral aspect of the left thigh was accomplished. The fascia was incised along the line of incision and each flap was dissected free of the underlying muscle for a distance of three centimeters. The muscle was separated by blunt dissection thereby exposing the shaft of the femur and greater trochanter. An aperture was accomplished in the shaft of the femur eight centimenters inferior to the greater

Fig. 7. Case No. 679. Roentgenograms of the left femur ten weeks after surgery. **A** (left) interior-posterior projection, **B** (right) lateral projection.





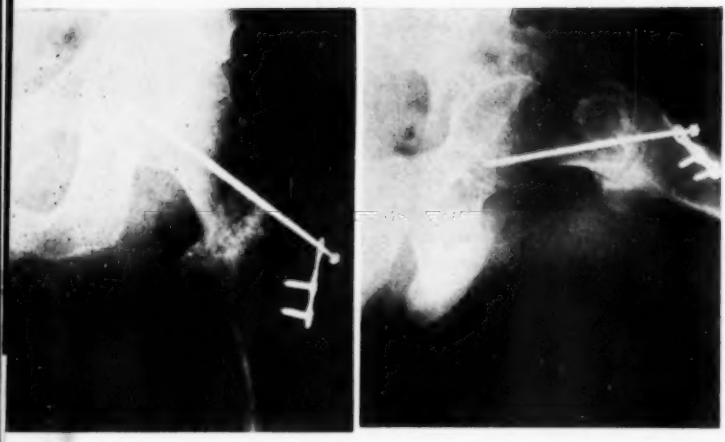


Fig. 8. Case No. 679. Roentgenograms of the left femur eighteen weeks after surgery. **A** (left) anterior-posterior projection, **B** (right) lateral projection.

trochanter by using a Kirschner hand drill. A Moore adjustable stainless steel alloy nail was inserted into the aperture and progressed through shaft of femur at an oblique angle. The nail was continued through the fracture site and into neck of femur. Roentgenographs in the AP and lateral projections were accomplished to visualize the position of the nail. The nail was then continued into the head of the femur as close to joint surface as possible. A Sherman Vanadium bone plate No. 2 was placed along the long axis of the femur after attaching the head of the Moore nail to the proximal screw aperture in the plate. Apertures were drilled into the femur shaft two screw openings in the plate and one-half inch screws secured the plate in through the distal position. The knurl nut was then applied to the Moore pin and tightened down to the Sherman plate. Excess Moore nail was removed with a nail nipper. Sulfathiazol crystals were applied to the entire operative area. The muscles were approximated with interrupted chromic no. 1 suture. The fascia was closed with interrupted chromic no. 1 suture and the skin wound approximated with metal skin clips.

Pathological Conclusions *Gross:* A roentgenogram of the pelvis in the AP projection shows a comminuted cervico-trochanteric fracture of the left femur. The relationship of the major fragments is good except for some external rotation of the distal fragment. (Figure 4) After introduction of a Moore threaded screw, roentgenograms in AP and lateral projections reveal the placement to be good and the fragments of the cervico-trochanteric fracture of the femur to be main-

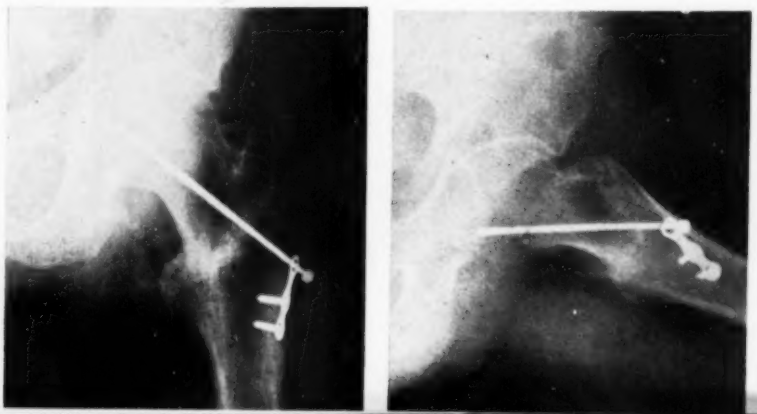


Fig. 9. Case No. 679. Roentgenograms of the left femur eight months after surgery. **A** (left) anterior - posterior projection, **B** (right) lateral projection.

tained in good position and alignment. (Figure 5)

Microscopic: None.

Diagnosis: Comminuted cervico-trochanteric fracture of the left femur with external rotation of the distal fragment.

Hospital Record The patient sat up in a chair on the third post-operative day. On the fourth post-operative day the patient was up on crutches and on the ninth post-operative day the patient was discharged from the hospital. Hospitalized on February 15, 1949 and discharged on February 23, 1949.

Office Record The patient was up and about on crutches from February 23, 1949 until June 1, 1949. Following this date he used a cane to assist in walking until July 1, 1949. After this date the patient did not use any device to assist in walking.

Roentgenograms on April 2, 1949 revealed the examination of the left hip after an interval of approximately six weeks to show partial obliteration of the fracture line in the cervico-trochanteric region by new bone production. The fragments are maintained in good position and alignment by the threaded screw and attached plate. (Figure 6) Roentgenograms on May 7, 1949 revealed the examination of the left hip after an interval of five weeks to show further obliteration of the fracture line in the cervico-trochanteric region by new bone production. (Figure 7) Roentgenograms on June 2, 1949 revealed the examination of the left hip after an additional interval of approximately one month to show progressive healing of the cervico-trochanteric fracture of the left femur. The threaded screw and plate are seen in place. (Figure 8) Roentgenograms on October 17, 1949 revealed the examination of the left femur in good position and healing of the cervico-trochanteric fracture of the left femur in good position and alignment. The threaded screw and plate remain in place. (Figure 9) The patient was discharged as cured on October 17, 1949.

Case No. 4215

A 55-year-old white female admitted to the hospital on September 28, 1950.

Family History Father died at age of 65, cause cerebral hemorrhage

Mother died at age of 49, cause childbirth

Brothers (3) dead:

One died at age of 33, cause pneumonia

One died at age 45, cause carcinoma of the stomach

One died at age 50, cause heart disease

Sisters (6) all living and well.

Past History *Childhood* — Usual childhood diseases with uneventful recovery.

Obstetrical—Gravida XI, Para XI.

Surgical—None.

Medical—None.

Chief Complaints 1) Inability to stand or place full body weight on right lower extremity. 2) Pain on any or all movement of the lower right extremity.

Onset and Course The patient states she was involved in an automobile accident. Following the accident she was unable to stand or place her body weight on the right lower extremity.

Physical Examination The physical examination reveals a 55-year-old white female who appears in acute pain.

Head and Neck—There is a hematoma around the left eye and a superficial laceration at the right supra-orbital ridge.

Chest—Inspection, palpation, percussion, and auscultation are all essentially negative.

Heart—Borders are within normal limits. Rate: 76. Rhythm: Regular. Murmurs: None.

Abdomen—Inspection, palpation, percussion, and auscultation are all essentially negative.

Lumbar Areas—Essentially negative.

Extremities—Upper: Essentially negative. Lower: Flatness of contour noted at the right lateral thigh when compared with the left. The entire lower right extremity is in outward rotation and on attempting inward rotation the patient complains of

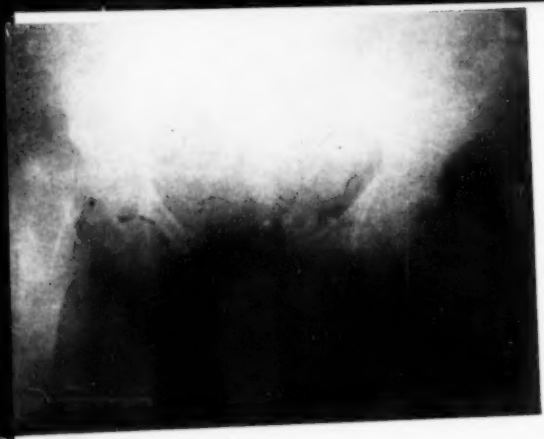


Fig. 10. (left) Case No. 4215. Roentgenogram of the pelvis in the anterior-posterior projection revealing a transcervical fracture of the neck of the right femur.

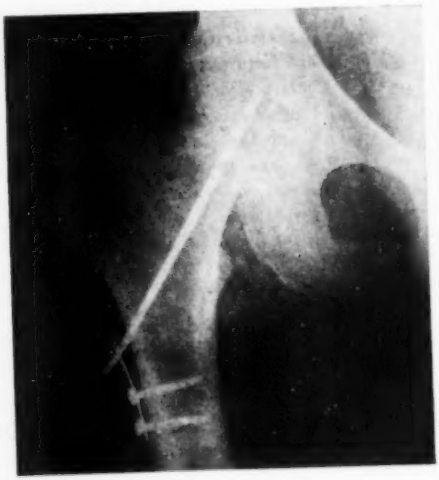
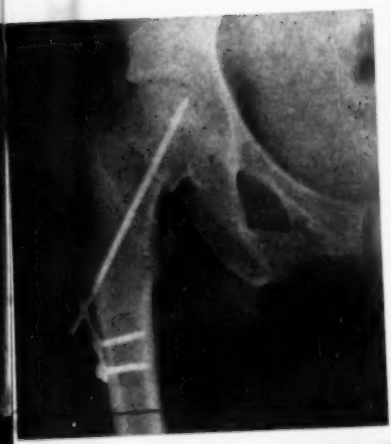


Fig. 11. (right) Case No. 4215. Roentgenogram of the right femur in the anterior-posterior projection after the placement of the Single Moore stainless steel nail, Sherman Vanadium steel plate No. 2, and two Sherman Vanadium steel screws.



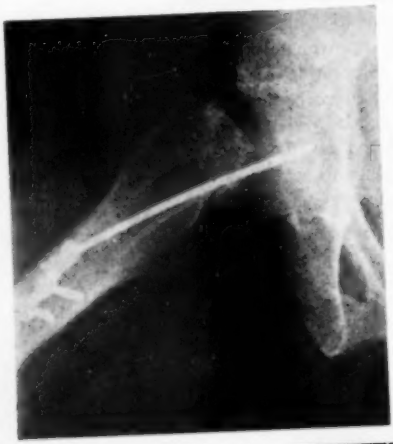
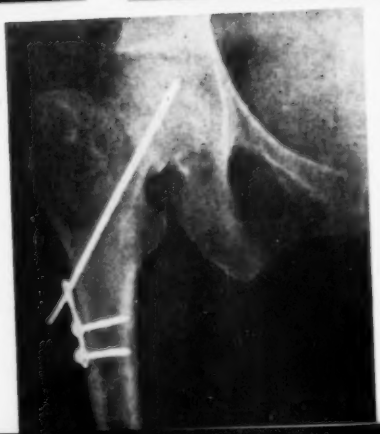


Fig. 12. (left) Case No. 4215. Roentgenograms of the right femur five weeks after surgery. **A** (left) anterior-posterior projection. **B** (right) lateral projection.



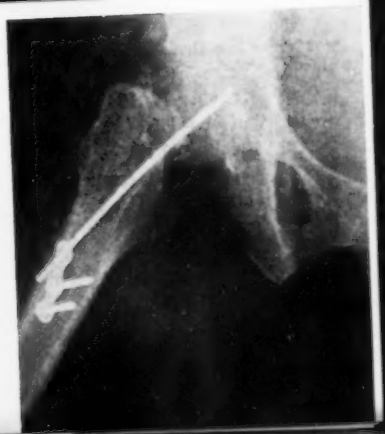


Fig. 13. right) Case No. 4215. Roentgenogram of the right femur nine weeks after surgery. **A** (left) anterior-posterior projection. **B** (right) lateral projection.

severe pain. Point tenderness is elicited over the area of the greater trochanter of the right femur.

Vaginal Examination—Introitus—admits three fingers. Bartholin's glands—negative. Skene's glands—negative. Urethra—negative. Cervix—mild erosion of cervical mucosa. Adnexa—negative. Fundus—normal position and no enlargement.

Rectal Examination—Negative.

Laboratory Findings—Blood Chemistry: Non-protein Nitrogen—27. Sugar—120.

Blood Kahn: Negative
Blood Count: R. B. C. 3,550,000
W. B. C. 7,200
Hb. 11.7 gm.
C. I. 1.00
Hema. 35
Schilling: Juveniles—2
Segs.—70
Lymphs.—28
Coagulation Time—4 min. 45 sec.
Bleeding Time—29 sec.
Urinalysis—Color—Yellow
Character—Turbid
Reaction—pH 7.5
S. G. 1,019
Albumin—Negative
Sugar—Negative
Microscopic—Negative

X-ray Reports Roentgenograms of the pelvis in the AP projection to include both hips along with a lateral roentgenogram of the right hip demonstrate the presence of a transcervical fracture of the neck of the femur. There is some buckling at the fracture site with anterior bowing resulting. There is also some external rotation and proximal displacement of the distal fragment. (Figure 10)

Surgical Technique

Preoperative Diagnosis—Transcervical fracture of the neck of the right femur with anterior bowing of the neck and external rotation and proximal displacement of the distal fragment.

Anesthetic—Ether and oxygen mixture by inhalation.

Surgical Procedure An incision of approximately fifteen centimeters, beginning over the greater trochanter and extending down the lateral aspect of the right thigh was accomplished. The fascia was incised along the line of the skin incision and each flap was dissected free from the underlying muscle for a distance of three centimeters. The muscle layer was separated by blunt dissection, thereby exposing the fascia capsule, shaft, and greater trochanter of the femur. The fascia capsule was opened, the relationship of the fragments noted and aligned. An aperture was accomplished approximately eight centimeters inferior to the greater trochanter with a Kirschner hand drill. A Moore adjustable, stainless steel alloy nail was inserted into the aperture and progressed through the shaft of the femur at an oblique angle. Roentgenograms in the AP and lateral projections were accomplished to visualize the nail position. The attitude and position of the nail were found satisfactory. The nail was continued through

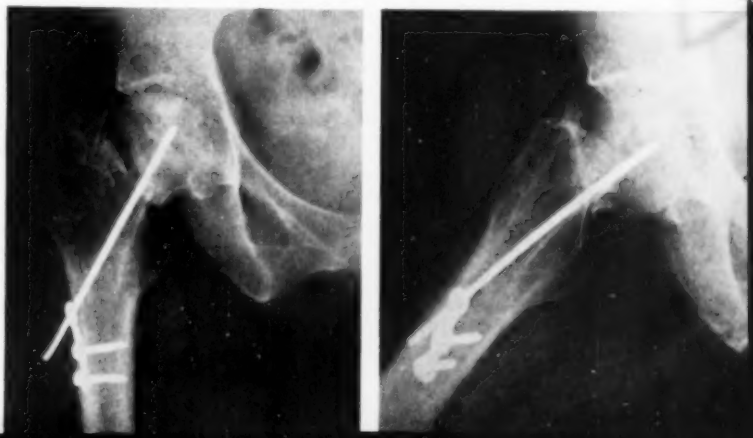


Fig. 14. Case No. 4215. Roentgenograms of the right femur fourteen weeks after surgery. **A** (left) anterior-posterior projection, **B** (right) lateral projection.

the fracture site and into the head of the femur as close to the joint surface as possible. The excess Moore nail was removed by a nail nipper. A Sherman Vanadium bone plate No. 2 was placed along the long axis of the femur, after attaching the Moore nail to the proximal screw aperture in the plate. Apertures were drilled into the cortex of the femur through the distal two screw openings in the plate and one-half inch screws secured the Vanadium plate in position. Sulfathiazole crystals, grams four, were applied to the entire operative area. The joint capsule was closed with interrupted chromic No. 1 suture. The muscles were approximated over the capsule with interrupted medium silk sutures. The skin wound was approximated with metal clips.

Pathological Conclusions *Gross:* Multiple AP and lateral roentgenograms have been made after the manipulation and reduction of the fracture of the neck of the right femur. Additional films have been made during the various stages of the introduction of the pin obliquely across the fracture site from a point along the lateral aspect of the femur at the level of the lower portion of the lesser trochanter. The pin has been extended well up into the head of the femur. The final film shows its fixation by a three-screw plate along the upper lateral aspect of the shaft of the femur.

Microscopic: None.

Diagnosis: Transcervical fracture of the neck of the femur with anterior bowing of the neck and external rotation and proximal displacement of the distal fragment.

Hospital Progress 10/2/50 — Surgical day. Patient returned from surgery in good general condition. Pulse 80, Respiration 16.

10/3/50—T. 100 P. 88 R. 20. First post-operative day and the patient took liquids freely. Complaints of some pain in operative area.

10/4/50—T. 98.8 P. 84 R. 20. Second post-operative day and patient is receiving a light diet. Patient is not complaining of pain.

10/5/50—T. 84.9 P. 72 R. 24. Third post-operative day and patient eating general diet. Patient does not have pain.

10/8/50—T. 98.4 P. 64 R. 16. Sixth post-operative day and the patient sat up in a chair.

10/9/50—T. 98.6 P. 80 R. 20. Seventh post-operative day and patient was up walking on crutches. Skin clips were removed and wound was well healed. Roentgenograms of the right hip taken on the seventh post-operative day in the AP and lateral projections show the fragments of the fracture of the neck of the femur maintained by the pin and attached metal plate along the lateral shaft of the femur. The distal fragment shows slight superior and anterior displacement. (Figure 11)

10/10/50—Patient discharged as ambulatory with aid of crutches on the eighth post-operative day.

Post Hospital Record 10/25/50 — Up and about on crutches. The patient does not complain of pain or discomfort.

11/8/50—Walking about on crutches and patient states she has used the right leg without the aid of crutches on two occasions. Roentgenograms of the right femur five weeks after surgery taken in the AP and lateral projections reveal the fragments of the fracture maintained in the same essential relationship by the pin and attached plate. (Figure 12)

12/4/50—Up and about on crutches. of the right femur nine weeks after surgery She has been without pain or discomfort since leaving the hospital. Roentgenograms taken in the AP and lateral projections reveal the fragments of the fracture maintained by the pin and plate. No significant bone production is discernible yet. (Figure 13)

Conclusion

The advantages of this technique are early ambulation without fear of dis-

placement or disturbance in circulation at the fracture site. The surgical procedure is very simple and requires only a minimum of time to accomplish. Local anesthesia is adequate and in this age group of patients this fact alone is important. Early ambulation in this age group is important because the patients rest and sleep much better without the use of narcotics. This in turn causes the patient to have an improved appetite and with improved nutrition the patient has more energy. With this procedure an early end of the hospital stay is an added advantage and if for no other reason it is less expensive.

References

1. Cleveland, Mather; Bailey, Walter L.; Surg., Gyn., Obst., 1950:393-405.
2. Poborsky, R. W.; Indust. M. 1943; 12:211-212.
3. Wellmerling, H. W.; Indust. M. 1944, 13:809-817.
4. Hardinge, M. G.; Surg., Gyn., Obst., 1950, 90:305-306.

323 Unity Building

Magnetic Iron Stripe to Aid Education

The addition of a magnetic iron stripe to 16mm film will produce a small revolution in all education, according to Dr. David S. Ruhe, Director of the Medical Audio-Visual Institute of the Association of American Medical Colleges.

The magnetic stripe is a recent technical development which allows amateur film producers to convert silent film footage into sound movies easily and inexpensively.

Writing in the May 1952 issue of *The Journal of Medical Education*, Dr. Ruhe predicts this revolution is coming very soon in medical education. Rapid advances of medical research projects make constant editing of teaching films necessary in order to prevent obsolescence. This problem now becomes greatly simplified.

Making use of the same procedure as the tape recorder, the stripe makes possible great flexibility in commentary. Medical teachers will be able to adapt sound strips to different audiences. For example, a film used for medical students may be "erased" and re-recorded for use with a group of nurses.

Cost of the magnetic iron stripe will be somewhat less than the titles of a silent film, Dr. Ruhe says.

Many medical centers possess silent films of surgical procedures and rare clinical cases which may now be adapted easily for classroom use. Projection time is gained with the omission of titles.

First World Congress on Fertility and Sterility to be Held

The First World Congress on Fertility and Sterility sponsored by the International Fertility Association will be held in conjunction with the American Society for the Study of Sterility in New York City in May, 1953.

On October 18, 1951, in Rio de Janeiro, Brazil, delegates from twelve nations founded the new world medical society known as the International Fertility Association. Aims of this organization are:

1) To study the problems of Fertility and Sterility in their broad implications.
2) To stimulate scientific investigation and social awareness in the field of Fertility and Sterility.
3) To standardize and orient nomenclature, terminology, tests and evaluation of diagnostic methods and therapy, throughout the world.
4) To hold international congresses in the specialty in different parts of the world. These congresses are to be regularly scheduled.

Practical Management of Everyday ENT Problems

NOAH D. FABRICANT, M.D., M.S.*
Chicago, Illinois

Praise and fame will come to him who provides mankind with a cure for leprosy. However, more human misery would be alleviated by the development of a good program of prevention and management for such common, non-disfiguring office complaints as headache and earache. These everyday problems are collectively more serious because they affect everyone at some time and many people many times. Every practitioner sees such patients whereas few doctors see leprosy victims.

The scope of this paper includes only a small fraction of the causes of earache and headache. Because otitis externa and sinusitis are deemed among the commonest of the troublesome E N T problems which produce these complaints and lead the patient to seek medical care, otitis externa and sinusitis are discussed here in detail.

One of the greatest problems is to find suitable medicaments for topical use in the nose and ear. The number one rule of all therapy applies—never to do harm—but is often forgotten.

How to Select Medicaments for The Nose Understanding of the manner in which drugs affect the physiology of the nose will assist in the formulation of a rational form of therapy. Nontoxic drugs which are compatible with ciliary motility, which do not vary greatly from the pH (5.5 to 6.5) of the nasal secretions and which are nontraumatizing to the mucous membranes are most useful.

Such nasal medicaments can be employed in treatment in sinusitis, acute rhinitis, allergic rhinitis, nasal congestion and allied conditions.

Partial List of Solutions Detrimental to Ciliary Activity

1. tap water
2. distilled water
3. saline solution above 4% concentration
4. mineral oil
5. epinephrine 1:1000
6. cocaine solutions above 5% strength
7. sodium sulfathiazole 5%

Partial List of Solutions Not Interfering with Ciliary Activity

1. sodium chloride 0.9%
2. cocaine hydrochloride solution of 5%
3. ephedrine hydrochloride 3%
4. Neo-synephrine 0.25%
5. Streptomycin in concentrations of 100 to 1000 units per cc. in isotonic salt solution
6. Penicillin at 5000 units per cc. in isotonic salt solution

Normal nasal secretion possesses a pur-

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poseful acid barrier to infections. Acidity as reflected in low pH values constitutes an unfavorable environment to the growth of pathogenic bacteria. The pH of the drug directly affects the pH of the nasal environment. Drugs with a highly alkaline pH induce in the nasal pH a pronounced drift toward alkalinity. The most favorable drugs are those with a pH between 5.0 and 6.5—a physiologic pH range. They are least irritating and most helpful for the restoration of health. Ephedrine 1% solution in physiologic saline has a pH in this range. Alconefrin (phenylephrine hydrochloride) nasal drops are buffered to pH 6.4.

Caustic reactions are produced by such medications as 5% sulfathiazole solution or Mercurochrome instillation. Such substances may be injurious by reason of alkalinity or their ability to destroy cilia. Mercurochrome, introduced into the nasal cavities of laboratory animals, passes through the mucous membranes, through the turbinates, bony walls and even through the dura to discolor the cortex of the brain in less than two hours!

Effective nasal medicaments will be innocuous to nasal histology and physiology. Among such drugs are good vasoconstrictors and bacteriostatic agents. Whatever is employed may produce more than merely local effects. Systemic effects must therefore be regarded with care so as to avoid harm elsewhere in the body. Absorption from mucous membranes of the nose and sinuses is more active when these membranes are inflamed.

One of the most useful of topical medicaments is the class of drugs known as vasoconstrictors. Symptomatic relief rather than curative action is achieved by use of these agents. Due regard for nasal physiology permits their use without harm. Excessive use may lead to increased nasal stuffiness or vasomotor rhinitis medicamentosa. The mucous membranes then have the appearance seen in tissues during an acute allergic episode. Discontinuance of the offending medicament permits prompt

Fig. 1 A

Fungus infection of external auditory canal found in otomycosis.

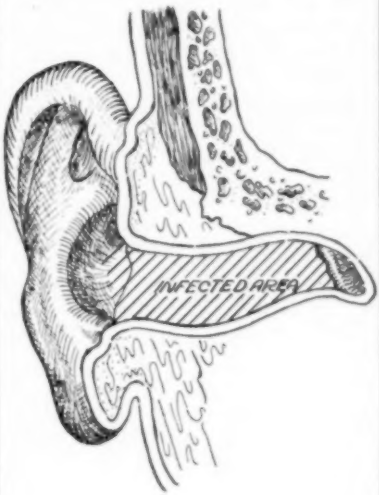


Fig. 1 B

Otitis externa (furunculosis).

relief or cure.

The employment of nasal medicaments with mineral oil as a vehicle has now been largely discontinued and the incidence of lipoid pneumonia is consequently decreasing. Prolonged use of silver salts in contact with nasal mucous membranes can lead to argyrosis.

Modern Sinus Therapy A pronounced drift toward conservatism in the treatment of paranasal sinus disease has occurred in recent years. There is greater appreciation of the role of systemic drugs in nasal and sinus infection and less frequent resort to surgery.

Any acute nasal infection may extend into the paranasal sinuses. Mild infection of paranasal sinuses may escape detection. The symptoms of sinusitis may resemble those of the acute cold which provokes the sinusitis. In more severe sinus infections, symptomatology is aggravated and the different sinuses sometimes provide individual findings.

Maxillary sinusitis may produce tenderness over the cheek. If the ostium is occluded, ocular pain and swelling of the cheek can occur. Transillumination and roentgenologic evidence may be necessary.

Ethmoiditis frequently occurs with acute involvement of the frontal or maxillary sinuses. A sensation of painful pressure or tightness of the side of the bridge of the nose is one sign of ethmoiditis. This may be accompanied by pain at the inner canthus of the eye. Other signs which help to distinguish ethmoiditis from acute rhinitis are:

(1) persistent nasal discharge

(2) obstructed breathing on the involved side

(3) loss of smell

(4) nasopharyngeal irritation and cough

Frontal sinusitis may cause supra-orbital pain associated with eye pains and headache. Edema of the upper eyelids and over the sinus may occur if drainage is impaired. Sphenoiditis is a diagnosis frequently missed. Symptoms not explicable by nasal infection or involvement of other sinuses draw attention to the sphenoids. Pain or a sense of pressure in the occipital region, headache and vertigo may be produced.

Treatment of pansinusitis or of maxillary, frontal and other sinusitis is basically the same but there are individual measures as indicated by the anatomy. Systemic measures include bed rest and confinement to a room with controlled temperature (about 70°F) and humidity (about 40 to 50%). Pain responds to anodynes and application of heat from an infra-red lamp, heat pad or hot wet compresses. Heat is used at 2-3 hourly intervals for 20-minute periods. Antibiotic and chemotherapeutic treatment is of most benefit when given in full dosage, systemically, early in the course of the acute infection.

Intranasal medication should be given in accordance with good understanding of nasal physiology. Relief of distress can be obtained with a nasal vasoconstrictor spray, instilled with the patient in a head low posture. The establishment of adequate ventilation and drainage is a valuable objective, permitting a return to physiologic function. Appropriate nasal medication can also be introduced gently in the form of tampons or packs.

Sinusitis in Children The frequency of upper respiratory infection is greater in children than adults. Many persistent or recurring colds are due to infection of the paranasal sinuses. Unfortunately, there is common misunderstanding about the development of the sinuses. A number of otherwise well-informed men disregard sinusitis in infants and children because they fail to realize that ethmoid cells and maxillary antra are present AT BIRTH.

Undernourishment, poor hygiene, constitutional defects and mechanical interference with nasal ventilation constitute factors which predispose to sinusitis in children.

Systemic effects are usually more pro-

Fig. 2

Maxillary and frontal sinusitis may produce tenderness and pain over cheek, supra-orbital and eye pain, headache and edema of upper eye lids.

nounced in children. Lassitude, pallor, anorexia and high fever may occur without localizing symptoms, which are so helpful in making a diagnosis in the adult.

The rational use of a mild vasoconstrictor solution is important. Ephedrine sulfate 0.5% in physiologic saline is recommended. Complications of sinusitis in children include orbital cellulitis and abscess. Such serious problems should be avoided by careful attention to the frequently overlooked sinus infection, with the establishment of drainage and ventilation by the principles employed in treatment of the adult. Early, effective use of antibiotics and chemotherapy and hot moist packs is advocated.

When nasal drainage is profuse, a soft rubber ear syringe may be employed advantageously to clear the nasal passages. When an infant cannot take the breast or bottle because of a stuffed nose, aspiration with the rubber syringe at feeding time may enable him to proceed. The syringe bulb is compressed before introduction of the tip into the nostril and is allowed to expand. Permit the opposite nostril to remain open so that excessive negative pressure cannot develop.

Earache Numerous causes of earache, from foreign body to middle ear disease, are well known. One of the most obvious causes is otitis externa. There are times when this condition proves to be a terrible burden to the suffering patient and a taxing clinical problem to the conscientious physician. Otitis externa is a common summertime problem in rural communities. The name "otomycosis" has often been misapplied to these cases.

Otitis Externa Otomycosis is a troublesome fungous infection of the external auditory canal. Itching, soreness and occasional slight pain are usual symptoms. Hearing may become impaired because the canal sometimes fills with grey, green or black masses resembling wet blotting paper. Otomycosis is of limited geographic occurrence, most often in tropical and subtropical climates. Fungi and bacteria are causative agents, requiring moisture and warmth for growth. The highest incidence in this country is reported from Florida.

More than 50 different species of fungi have been blamed for otitis externa. Many fungi isolated from the external auditory canal are nonpathogenic saprophytes. The coexistence of pathogenic bacteria and saprophytic fungi is commonplace. Consequently the recovery of fungi from the external canal in the presence of otitis externa does not establish the diagnosis of otomycosis. Other forms of otitis externa include: furunculosis and eczematous dermatitis.

Staphylococcus aureus is the frequent offender in furunculosis. The outer third of the canal is affected. Great discomfort develops from the initial symptom of acute localized tenderness. There is little expansible tissue between the infected hair follicles and sebaceous glands and the underlying perichondrium.

The canal wall may be almost occluded. All movements of the jaw may become painful.

Both furunculosis and eczematous dermatitis of the canal may be secondary to chronic middle ear suppuration.

Eczematous dermatitis of the external canal may occur alone or in association with a similar involvement of the auricle and scalp. Chronic and acute forms may be recognized. The acute form is characterized by an initial stage of redness, itching and pain followed by a stage of watery exudation and crusting. Removal of crusts results in a raw, bleeding surface. The chronic form is characterized by an appearance of the canal varying from a dry scaliness to a pronounced thickening of the skin. Intense itching is a frequent symptom in the chronic form of dermatitis of the external canal.

Management of otitis externa consists of: (1) relieving pain and other symptoms; and (2) eradicating infection.

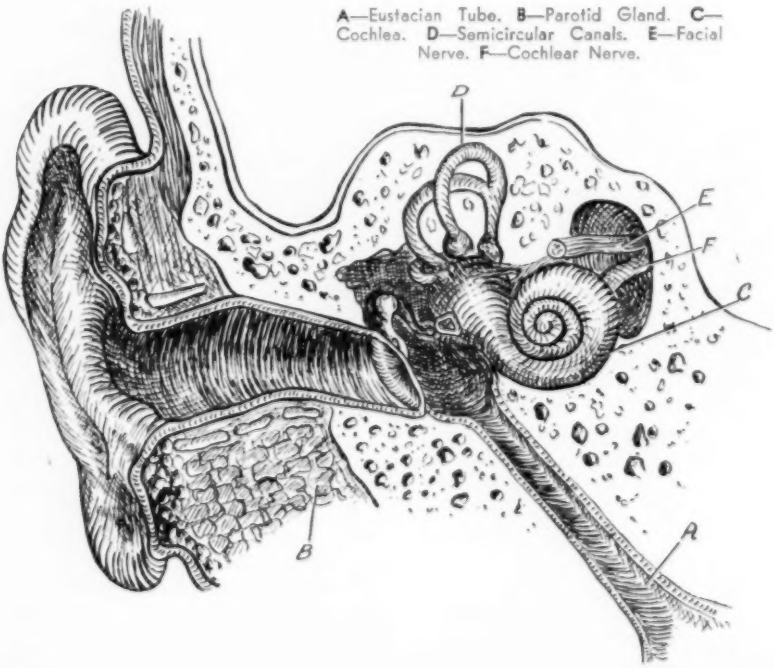
Furunculosis in particular is frequently accompanied by pain, requiring the use of anodynes. Heat in the form of infra-red irradiation, short-wave therapy, an electric pad or a hot water bottle is indicated.

Abortion of infection with roentgen therapy, antibiotics or sulfonamides is sometimes feasible when full dosage is given at the onset of the infection. Parenteral or oral administration is valuable in control of infection. A cotton wick of 5% aluminum acetate can be helpful. The cotton may be saturated instead with Burow's solution (2% acetic acid and 5% aluminum acetate.)

Chief features of management of furunculosis include: (1) careful cleansing of the external canal, (2) drying of the cutaneous surface of the canal, and (3) application of medication to prevent reinfection. Normal physiology presupposes a dry, intact skin with a pH on the acid side. Once the epithelial lining of the ex-

Fig. 3

A—Eustacian Tube. B—Parotid Gland. C—Cochlea. D—Semicircular Canals. E—Facial Nerve. F—Cochlear Nerve.



ternal canal has been broken and the pH altered from acid to alkaline, bacteria and fungi have added opportunity to grow. Medication *must not* enhance the opportunity for growth of microorganisms by alteration of the pH to the alkaline side.

In many obstinate cases, therapy proceeds somewhat on a trial and error basis. If a fungous infection is suspected, a wick moistened with 1% thymol in metacresyl acetate (pH 5.4) is inserted gently and left for 6 hours. No attempt is ever made to introduce forcibly a bulky cotton wick. Gentle introduction of a wisp of cotton suitable to the remaining lumen is sufficient. The wick is kept wet with the selected medicament by repeated applications with a medicine dropper.

The cotton wick may be saturated with plain metacresyl acetate (Cresatin). Some favor 2% salicylic acid in alcohol. Innumerable drugs and combinations have been tried with varying success. Topical use of antibiotics is often productive of allergic responses or induction of sensitization.

Headache About half of all patients who seek medical advice have headache as one of their symptoms. There are six basic mechanisms of headache from intracranial sources:

1. traction on the veins running between the brain and the great venous sinuses and displacement of the venous sinuses.
2. traction on the meningeal arteries.
3. traction on the large arteries at the base of the brain.
4. distention and dilatation of intracranial arteries.
5. inflamation in or about any of the pain-sensitive structures (i.e.: external ear canal or paranasal sinuses) of the head.
6. direct pressure by tumors on the cranial aand cervical nerves containing many pain fibers.

In summary, one should seek an explanation in traction displacement, distention or inflammation of cranial vascular structures.

Headaches from sinus disease stem mainly from involvement of sensitive nasal structures. The absence of pain or headache in acute sinusitis has often been observed. Headaches are heightened by conditions which increase swelling of nasal and sinus mucous membranes. Such varied conditions as the following may apply: cold air, sexual excitement, alcohol, tobacco, anxiety, resentment, menstruation. Intensification of sinus headaches may occur with stooping, exertion, sneezing, coughing and shaking of the head.

Rest in bed, the application of heat, gentle suction and conservative measures to establish drainage and sinus ventilation constitute good therapy for sinus headache. The judicious use of antibiotics and chemotherapy is advocated. Irrigation of the sinuses may be necessary and helpful in relieving headache in chronic sinusitis. Salicylates and other mild anodynes frequently produce adequate relief of sinus headaches.

Other causes of headache are legion. Systemic diseases, from acute infectious diseases to hypertension, are included. Migraine affects from 2 to 8 million Americans. Histamine headaches have been a recognized entity for several decades. Refractive errors, oculomuscular imbalance, glaucoma, iritis, keratitis, herpes zoster ophthalmicus and other eye problems produce headache. Psychogenic headaches need consideration. Cervical intervertebral disc disease can produce headache.

It is always a great source of satisfaction to diagnose a disease one can treat. When the response to treatment is good, when relief of symptoms is achieved and no harm from treatment occurs, the physician derives pleasure and satisfaction from his work. Headache from acute sinusitis and earache from otitis externa are conditions which provide the practitioner with opportunity for such pleasure and satisfaction.

185 North Wabash Avenue

"Natural Childbirth"

Is the Read Method of "Natural Childbirth" Waking Hypnosis?*

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Present trends of pain relief in childbirth are having a profound influence on the practice of obstetrics. The widespread interest in "Natural Childbirth," first propounded by Read,[1-3] has been responsible for an increased awareness of the emotional reactions occurring during labor.

Analysis of the Read Method

Influenced by the brilliant teaching of DeLee,[4] Read postulated the fear-tension-pain syndrome. He believed that decreased fear and tension raised the patient's pain threshold, consequently reducing the need for harmful drugs. Read does *not* deny the presence of pain during labor. He only advocates *less* analgesia and anesthesia, and this is unassailable in view of the low fetal loss associated with the Read method. The extensive literature on fetal anoxia also supports his contentions.

Read's method stresses the advantages of proper education and training of the mother for "Natural Childbirth." Read should be commended for his monumental efforts in propagating his ideas. By virtue of his sincerity and courage, his concepts have succeeded in penetrating the traditional barriers of medical conservatism. His valiant fight, made at great personal sacrifice, ranks with those of other top-flight medical pioneers.

We who are interested in hypnosis, however, feel justified in asking just what is "Natural Childbirth"? Enthusiastic advocates[5-7] of the method point out that the most important features during labor are non-interference by the obstetrician and the *consciousness of the mother*. However, analgesia and anesthesia are frequently used during the first and second stages, and prophylactic forceps, episiotomy and repair are done under local, caudal, or inhalation anesthesia. Yet, the method is called "Natural Childbirth." It is, therefore, obvious that the term "Natural Childbirth" is a misnomer since it implies no interference with the natural course of labor.

Read's psychological contentions do *not* adequately explain his theory, chiefly because attention is directed to conscious fears. He fails to consider the strength of unconscious fears, which may be more important. Non-psychiatrically oriented physicians are seldom able to uncover these hidden anxieties. Bloss[8] noted this when he stated, "The practice of obstetric art requires much time and infinite patience, and thrice blest is he who has been so fortunate as to have also had previous training and experience in clinical psychiatry."

The validity of Read's physiologic concepts have also been challenged.[9-10] No one has ever proved that fear and tension *per se* produce pain. For example, the soldier in battle may demonstrate fear and tension, and yet he may be wounded without feeling pain. Nor is the pain of childbirth associated only with so-called civi-

* Some of the material herein presented was taken from the recent book by William S. Kroger, M.D. and S. C. Freed, M.D., entitled "Psychosomatic Gynecology: Including Problems of Obstetrical Care," W. B. Saunders & Co., Philadelphia, 1951.

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lization. Anthropologists who study "lost tribes" are well aware that pain in childbirth is not completely a culturally determined condition since primitive women are known to have pain in labor.[11]

Definition and Nature of Hypnosis First, the term "hypnosis" should be defined. According to most authorities,[12-14] hypnosis is increased susceptibility to suggestion. There are two degrees or two types, if you will, of hypnotic states that may be induced in an individual. The first is the light state or waking hypnosis and the second is the deep or somnambulistic state which is generally accompanied by amnesia, recall of memory, and post-hypnotic suggestion. Our discussion refers primarily to the first state—waking hypnosis.

In its broadest sense, waking hypnosis refers to any type of suggestion, visual or auditory. For example, a spell-binding orator; repetitious radio commercials—indeed all advertising is based on a mild type of waking hypnotic suggestion. Physicians, consciously or unconsciously, constantly use suggestion, and call it the art of medicine. A good entertainer or successful salesman is always using very powerful suggestion. Then again, a mother singing a lullaby to her infant is using concentrated suggestion to produce the waking hypnotic state followed by actual sleep. However, we wish to make it clear that even the deep or somnambulistic state *must be distinguished from true sleep*, and this important point will be amplified later.

Hypnosis is as old as time. In various eras and places it had different names. The temple sleep of the Egyptians, the tribal rituals of the medicine man, the faith cures, and the Yogi rituals of Hindu medicine are just a few examples. At present, waking hypnosis is unscientifically applied (but its use is not admitted) by such cults as Christian Science (a curious mixture of religion and hypnosis*), chiropractic (the laying on of hands), and dianetics. The waking and somnambulistic types of hypnosis have recently been revived as a diagnostic and therapeutic method by psychoanalysts in hypnoanalysis,[15-18] and also by obstetricians[19-21] and dentists[22-24] as an analgesic and anesthetic agent. Unfortunately, most of the experimental work in this field is still being carried on by psychologists for research purposes rather than for clinical use.

Comparison of Read Method and Hypnosis Since Read and his disciples apparently do not recognize the hypnotic aspects of his theory, we would like to compare natural childbirth with hypnosis. In our opinion, the Read method with its complex ritualistic routines and the creation of strong dependency on the physician have a great content of what is referred to as "waking hypnosis." This type of hypnosis is brought about through heightened susceptibility to suggestion, that is, suggestion made by one vested with authority. Here, too, the neuromuscular transmission of nervous impulses is capable of inducing complete relaxation *without loss of consciousness*. This fact may help us to understand the fundamental basis for Read's method.

Read categorically denies over and over again that his technic is based on any type of hypnosis, because his patients are not actually unconscious. S. T. DeLee,[25] investigating "Natural Childbirth," noted that almost all Read patients "sleep" well between their contractions. He states, "Frequently they have an amnesia of variable degree (sometimes complete) up to the time of the actual delivery itself, regardless of whether or not medication is administered." Read[1] also refers to a trance-like state of amnesia seen during the first and second stage of labor. This is certainly similar to deep hypnosis. During a recent discussion on "Natural Child-

* It is interesting to note that Mary Baker Eddy obtained all her training from a Boston hypnotist by the name of Quimby. After trying to sell the idea and meeting with tremendous resistance, she added a smattering of religion and called it Christian Science. From then on she took great pains to discredit hypnosis.

birth," Ruch[26] asks, "What is this if it is not hypnosis?" Read, however, seems to object to the word "hypnosis." At the time he promulgated his theory, Read no doubt believed a hypnotized person is actually asleep. This is not surprising since few physicians are acquainted with medical hypnosis, which, contrary to popular opinion, is not induced by "staring eyes," the "making of passes," and unconsciousness.

Let us examine the question of unconsciousness in waking and deep hypnosis. The following observations indicate that unconsciousness is not necessary for waking hypnosis. Wells[27] demonstrated that with "waking hypnosis" he could paralyze or relax large groups of muscles, and even though the subjects did not lose consciousness, they were anesthetic. Brenman and Gill[28] demonstrated that even *deeply* hypnotized persons are fully conscious, and may be completely aware of all sensations as in the so-called "waking state." Such data apparently refute the older views of Pavlov, Charcot, and Freud. Their outmoded concepts of hypnosis were traditionally accepted until recently. These opinions, unfortunately, have held back clinical investigation in hypnosis for over fifty years. That even deep hypnosis is not sleep or unconsciousness is further substantiated by brain wave studies,[29] measurement of knee reflexes,[30] electrogalvanic reactions,[31] blood pressure,[32] and cerebral circulation,[33] all of which indicate that physiologically the hypnotic state is identical with the waking state. From the above observations, it is obvious that the high pain threshold produced by concentrated suggestion or waking hypnosis can be induced without loss of consciousness. This is an important point to keep in mind when evaluating the Read method.

Janet,[34] following the work of Braid, Bernheim, Charcot and others, recognized the value of relaxation in the treatment of human ills. He described the relationship between hypnosis and relaxation. Jacobson[35] incorporated some of Janet's psychologic principles with physiology and called it Progressive Relaxation. The late J. B. DeLee, whose encouragement stimulated our interest in hypnotic obstetrical anesthesia, recognized that relaxation was easily induced by suggestion, and that maximum relaxation and anesthesia without drugs could be best obtained by hypnosis. He states, "The only anesthetic that is without danger is hypnotism. . . . While I have not used hypnotism very often, I have used suggestion a great deal, indeed almost constantly, and I am irked when I see my colleagues neglect to avail themselves of this harmless and potent remedy."[36]

Those who are familiar with the techniques of hypnosis do not hesitate to use this valuable therapeutic adjunct because they recognize the power and influence of suggestion. It seems that the refusal to use hypnosis comes chiefly from those physicians who are not aware of the relationship of suggestion to hypnosis. Further resistance to its use is due to the stigma associated with the word "hypnosis." How much longer must scientists continue to practice medicine according to the dictates of public policies and hide under labels?

Despite the protests of Read and the advocates of his method that they do not use hypnosis, Greenhill,[37] Emge,[38] Mandy and associates,[39] and Rosen,[40] among others, believe that Read's exercises are merely modifications of the initial procedures of hypnosis. We fully agree with them. On numerous occasions we have been able to produce immediate hypnotic relaxation in patients who were not seen until in actual labor. Painless labor ensued without any previous relaxing exercises! Rodway[41] studied 340 exercise-participating patients and a similar group of controls. She could find *no* appreciable difference in the length and type of labor, hemorrhage, lacerations, relief of pain, or infant mortality between the two groups.

Therefore, as indicated, the relaxing exercises are not necessary. In our opinion, the relaxing exercises are only a "smoke-screen" that obscures the fact that waking hypnotic suggestions are subtly used throughout the training for "Natural Childbirth." They may provide time during which *rapport* can be established between doctor and patient, and greater trust and confidence engendered by the "authoritarian" figure of the physician.

Abramson and Heron[42] evaluated the use of hypnosis in obstetrics and found that it "shortened labor by about 3½ hours." They, too, believe that the success of Read's method is not dependent on its methodology, but more upon the use of education, relaxation, and suggestion. Since hypnosis also depends on relaxation and suggestion, they think that if Read's educational technics could be combined with deep hypnosis, better results could be obtained.

Psychophysiologic Aspects of Hypnosis One is justified in asking "What is hypnosis and how does it raise the pain threshhold? Is the absence of pain due to anesthesia or amnesia (dissociation)? The presence of anesthesia, however, during "waking hypnosis" negates the idea that hypnosis is due to dissociation or amnesia. We[43] have advanced the theory that in susceptible individuals, the hypnotic state may be an atavistic reversion analogous to the inanimate state of catalepsy so commonly observed in frightened animals as, for example, the deer when it "freezes" to the landscape in order to escape detection. Thus, the hypnotic state at one time may have been necessary in humans as a protective defense mechanism to ward off fear or danger, the difference now being that the presence of a fully developed cortex in the human eliminates certain instinctual defense mechanisms. When subjected to inordinate fear or excessive pain, some individuals will manifest this atavism. Where it is closer to the surface, hypnosis is easily induced. Where it is deeply repressed, or where there is great resistance to or fear of the hypnotic process or therapist, the best therapist cannot hypnotize such an individual. Schmitz[44] likewise places the degree of hypnotic susceptibility entirely within the subject. This may explain the various gradations of hypnotic susceptibility.

Hypnosis in Labor Another aspect of hypnosis seldom discussed is that some parturients can learn to condition themselves against fear, thus immunizing themselves to pain. As a matter of fact, any phenomena seen in hypnosis can be self-induced by adequate autosuggestions. The best way of initiating autosuggestion, however, is through hypnosis itself. Here, by means of posthypnotic suggestions the patient is given control over herself. Autohypnosis may explain the "insensible labor" seen in many patients, for example, those patients who study Read's book and report relief from pain, or the "painless labors" often seen in Christian Scientists.

Recent publications[45-48] indicate that suggestion and hypnosis have been widely and successfully employed in Germany and the Soviet Union. Judging from the latest reports, hypnosis is becoming a more popular method of delivery in Great Britain. Newbold[21] and others in England have succeeded in inducing effective analgesia and anesthesia by hypnosis in many parturients.

We believe that hypnosis fulfills many of the qualifications for the ideal anesthetic in selected patients. Furthermore, hypnosis does not alter the normal mechanism of labor. Some psychiatrists believe that consciousness during labor is a beneficial emotional experience. We have noted that many of our patients are now expressing keen resentment over being "knocked out" because they feel that they have missed a unique experience. Whether or not the presence or absence of pain during labor is good for women, hypnosis has unrealized possibilities for making child-

birth not simply the equivalent of a surgical operation, but rather a satisfying psychologic experience which may fulfill deeply felt and sometimes unrecognized and unformulated needs of the mothers.

Kroger and DeLee[19] reported a series of primiparae wherein they induced amnesia, analgesia and anesthesia by means of *deep hypnosis* early in labor. All pain and discomfort were eliminated until the completion of labor and postparum repair. If they had to use even a whiff of gas or a "hypo," they classified such cases as failures. They found that about three out of five primiparae were amenable to this method. Prophylactic forceps, episiotomy and perineorrhaphy were performed in all cases. No sedation or anesthesia of any type was used. We consider prophylactic forceps and episiotomies on primiparae good obstetrics. Hence, this is really Natural Childbirth!

We[43] recently reported on the use of "waking hypnosis" (no amnesia) and found that about 25 per cent of the patients could be carried through the early stages without the use of sedation or anesthesia. In our experience waking hypnosis, like the Read method can seldom be used to perform episiotomy and repair without some degree of analgesia and anesthesia. In many of our remaining patients (about 40 per cent) the amount of sedation and anesthesia could be appreciably reduced. Here hypnosis is used only as an adjunct. Of course, one should bear in mind that if a strong bond of confidence exists between physician and patient, then about 10 to 15 per cent of all patients may be free of discomfort, even if no other psychological preparation is used. Mandy[39] observed that the relative success achieved through natural childbirth is statistically the same as the general hypnotizability of the public at large. We do not wish to imply that hypnosis will ever supplant anesthesia. However, when the use of hypnosis in childbirth becomes more "fashionable," more patients will be receptive to its use, and physicians in turn will be less resistant to the concept and the technique.

Because of the dental profession's recent interest in hypnosis, we can envisage that in the future many pregnant women will be asking for pain relief by hypnosis. Should the obstetrician suggest the Read method, including the relaxing techniques, the patient may remark, "Doctor, I am not against learning all about childbirth, but why do I have to go through all the training exercises? My dentist completely eliminated pain by hypnosis when he drilled on my teeth. The pains of childbirth are not any worse than that, so why can't you use the same method?"

Hypnosis is rapidly assuming the dignified position in medicine that it deserves. We are indebted to Read's epochal work for having made women cognizant of methods for pain relief other than the excessive use of drugs and anesthetic agents.

Personality Factors in Suggestive Anesthesia We have studied candidates for both hypnosis and the so-called natural childbirth method. They often have similar personality profiles as well as an identical need for these particular procedures. Personality profiles of these individuals indicate a high degree of compulsiveness, and a desire to please the father figure (the obstetrician). Generally, their choice of these methods are based on multiple unconscious factors of which fear of childbirth is only a superficial aspect. Psychiatrists are aware that an emotionally mature attitude toward pregnancy is dependent on healthy psychosexual development. If the pregnant woman approached menstruation, marriage, and motherhood with fear and trepidation it is only natural to expect anxiety during pregnancy and labor. We have noted that women who have rejected the feminine role, either because of latent or overt homosexuality, or fixation at earlier levels of personality development (the infantile adult) are more than likely

to have inordinate needs for pain relief during childbirth. It may be stated that all too often the reasons for seeking suggestive methods of pain relief are: fear of pain; fear of death while unconscious; fear of losing control of oneself and injuring the baby; fear of what might be said when one loses unconsciousness; curiosity as to the birth process; and fear of pain as punishment where the pregnancy is unwanted. Unfortunately too few patients seek suggestive methods. Regardless of nomenclature, they are the methods of choice for safe—both physically and psychologically—healthy childbirth.

Conclusions

Though analogies are frequently misleading, when sugar is dissolved in coffee it follows definite laws of solution—it does not follow a Smith method or a Jones method. Likewise when the pain threshold is raised in the parturient, it is not accomplished by a Read method or anybody else's method. The raising of the pain threshold by a psychologic approach can only follow definite laws—that is, laws of suggestion. The acme of suggestion is hypnosis. To use a hackneyed cliché—a rose is still a rose by any other name.

The following uncensored remarks by one of our patients[49] beautifully illustrates many of the above contentions about waking hypnosis.

Case History—No. 1

"When I had my first baby, I was a clinic patient. I had no particular doctor; there were several in the clinic; whichever was on duty took the records and continued them. The examinations were thorough enough, I suppose, but very brief and impersonal, giving one the feeling of being an object on an assembly line. I suppose the doctors found it impossible to remember so many patients individually unless something was unusually wrong. At any rate, I was never given an indication of being remembered and I did have a very uneventful pregnancy. No attention whatsoever was paid to the emotional attitudes of the patients. The examinations were strictly physical and the emphasis was entirely upon the possibility of pathology, so that after each visit one breathed a sigh of relief that one had got along so far without something being awfully wrong, though one might almost wish for something mildly pathological but interesting so that one would be recognized by the doctors and have something to talk about to the other women during the long waits.

"During this first delivery, which was normal, I expected and experienced agonizing pain. I did not know and no one told me that it was useless to push from the beginning of labor. Being extremely eager to be as helpful as possible I pushed like mad during the whole first stage so that by the time I reached the point where it would have really helped, I was too exhausted to move voluntarily. By some miscalculation, I was placed in the delivery room prematurely so that I spent the last two hours of labor on a narrow table with my legs strapped in the air. I had determined to make no sound and probably would not have if the nurse attending me in the delivery room had stayed with me or had made some comment as to how I was getting on. As it was, she spent most of the time gossiping with someone in the hall, making hurried, noncommittal excursions in to inspect my suspended anatomy, sometimes even continuing her hall conversation as she inspected, so that it was hard to get her attention. In between visits I felt like an unwatched pot, which had no way of knowing how near to the boiling point it was. I was terrified that I might boil over in the cook's absence, and I discovered then that the one way of getting her back in a hurry was to yell, and so I yelled. After a while she told me to save my energy and I was glad of the opportunity to tell her why I was yelling; I also added my opinion that only a clinic patient would ever be left entirely alone in a **delivery** room. I don't know whether or not this was justified, but she did stay with me from then on, though she continued to give only perfunctory answers to my questions.

"I felt extremely alone and helpless. I did not know who would deliver my baby. I did not know how I was progressing. There was no one to talk to. My husband was home in bed with influenza. My mother-in-law had come with me to the hospital, but she had not been allowed upstairs. I lay and stared at the clock above my head and wished to heaven I'd been born a man. Finally I heard a familiar voice. It was my only friend in the hospital—an interne in another ward. He was trying to persuade the head nurse to let him talk to me for a moment. He did not get in to talk to me but I was everlastingly grateful for having been able to hear at that moment the voice of someone who thought of me as something more than an anonymous reproductive system.

"His voice was the last I heard as I gratefully accepted the anesthetic. I was not conscious again until at least an hour after the baby was born. I did not see the baby until twenty-four hours later; when I did, I felt very objective about her; she did not seem to be mine. But I did not feel objective about the pain I felt and I swore I would have no more children. How long this feeling would have lasted under ordinary circumstances, I don't know. My first baby died when she was four months old. After that, I had to have another child.

"During my second pregnancy, I accidentally discovered a book at a public library entitled **Childbirth without Fear** by Grantly Dick Read. As I read the first few pages, I was tempted to lay it aside, because it seemed rather sentimental. A little further on, however, I was struck by the appropriateness of the criticism of the usual obstetrical procedure. The description of the action of the uterine muscles during delivery was entirely new to me; I was not sufficiently informed to be able to judge its accuracy, but it seemed logical. Certainly I agreed that some attention should be paid to the emotional attitude of a woman in labor and that she should be informed as to the progress of her delivery. I decided to try out Read's method. I was already pregnant; I reasoned that I had nothing to lose. I could find no one who had ever heard of the book or of the theory. (This was 1945; since then it has received considerable publicity.) I took it to my obstetrician, (I had one this time, and a reputable one) but he fluffed it off as unscientific. I told him I was eager to try it anyway, but the extent of cooperation I was able to get from him was that he agreed not to anesthetize me unless I wished it, except for the episiotomy for which he would use a local. He was friendlier than the clinic doctors had been and he certainly remembered me better, but otherwise my visits to him were very much the same as the clinic examinations—strictly physical with an emphasis on pathology.

"I was extremely enthusiastic about the theory and determined to give it a chance, even without cooperation from my attendants. My husband was very sympathetic. The night that my contractions started, we kept the book open beside us and consulted it periodically. I was amazed at the difference in the

way I felt during these contractions and those of my first labor. This time I was completely relaxed and I felt no pain. In fact, I was so comfortable that I began to suspect that I might not really be in labor in spite of the fact that the contractions were regular and felt quite similar to Read's description of them. In order to test myself I decided to make myself tense during the next contraction! immediately I felt pain. I called my doctor and went to the hospital. I continued to relax well during contractions in spite of the fact that the nurses and internes called them "pains" and interrupted my work to collect a great deal of what seemed to me to be highly unimportant information about the time of my first menstrual period, the regularity of the flow, etc. The transition to the second "pushing" stage took place without my knowing it and occurred much faster than any of the attendants had expected. It was faster than my doctor had expected too, evidently, because I found myself on the delivery table ready to have my child and the doctor was still not there. I was pushing away with all my might and having no pain at all when the interne started dancing around trying to persuade me to take an anesthetic because my doctor had told him to hold up the birth until he arrived. I didn't want the anesthetic and said so. The interne became agitated again and asked if I would please hold it back myself then. I said absolutely no, because I knew that would hurt. Again he asked if I wouldn't please, please take some gas. My confidence in him was completely shaken. It seemed to me that if he was so extremely eager to hold up the birth until my doctor arrived, he must be unsure of his ability to deliver the baby. Perhaps something went wrong. I wavered a moment, and in that moment, they clamped on the gas and I did not wake up until after my son had been born and carted out of the delivery room, and my doctor was standing apologetic at my side. Needless to say, I was very angry at not having been allowed to carry through without anesthetic, for as it turned out, the birth was completely normal. But at the same time, I was also tremendously enthusiastic about the so called "Read method" because up until the time that they clamped on the gas, it had worked perfectly.

"When I decided to have a third baby, I thought very seriously about what obstetrician I would use. Certainly I wanted one who would cooperate with me in using the "Read method." I had met Dr. Kroger some time before at a social gathering, and had spoken with him about this method. He approved its practice, but thought it would work better when combined with hypnosis. Because Dr. Kroger had said he approved of the practice of the Read theory, I decided to go to him and discuss it further. I also discovered that Dr. Kroger's definition of hypnosis was much broader than I had expected, that in fact he considered it to include any form of suggestion, and that my experience in carrying out Read's theory could therefore be classed as autohypnosis or autosuggestion or perhaps hypnosis by Read via the book. It seemed to me that the only real theoretical difference between Dr. Kroger and Dr. Reed was that Dr. Read considered normal childbirth to be naturally painless or almost so, while Dr. Kroger considered natural childbirth an impossibility since by the time a woman reaches the childbearing age she must of necessity have been influenced by all of the various theories regarding childbirth that are current in her society and therefore she cannot be considered "natural."* I had no answer to Dr. Kroger's argument. Furthermore, for my needs the actual handling of childbirth was much more important than the theoretical aspects and since Dr. Kroger agreed to handle my confinement as I wished it, I decided to use him as my doctor.

"My understanding with Dr. Kroger concerning the handling of my confinement was that I would have exactly as much assistance from him as I wished and requested, no more. This was an especially important point for me since I was eager to remain conscious throughout delivery and to experience and remember my sensations throughout.

"On the morning of my third baby's birth, I awakened at 5:30 a.m. with the sensation of being in contraction. At 5:45 I started timing. They were true contractions coming about seven minutes apart. I relaxed well with each contraction and felt almost no discomfort.

"I arrived at the hospital at about 7:15. The contractions were coming then about two or three minutes apart. I had some difficulty relaxing in the car on the way over because I was unable to lie down. However, I was not really uncomfortable until the time came to expel the enema. I thought at the time that I was at the transition between the first and second stages of labor because I was no longer able to relax during the contractions, but instead felt the irresistible urge to push that one feels during the second stage. It is hard to distinguish this sensation from the very similar feeling connected with expelling an enema. There was no one immediately present to question about how far along I was and as a result I was distressed for fear my baby would be born along with the enema. However, I reasoned that if the nurse who had just given me the enema had suspected I was so near delivery she would never have left me alone. Nevertheless, I was very uncomfortable during those few minutes, both physically and mentally. I did not have pain, though, in the sense that I had pain while delivering my first child.

"Back on the bed in the labor room, I was immediately more comfortable. I tried relaxing again during contractions, thinking that perhaps the urge had been due to the enema, but I could not relax well. About this time, Dr. Kroger came in and examined me. He asked if I wished to have any assistance. I decided that I would like help in relaxing. He then asked me to close my eyes at a count of three, breathe deeply, start counting slowly and relax. This immediately deepened my feeling of relaxation and induced a tingling feeling of numbness in the tips of my fingers, making them feel stiff so that I could not bend them. However, I was still completely conscious and retained a feeling of being in control of myself. In fact, I felt that if I had strongly wished to bend my fingers I could have done so. (Previously, during visits to Dr. Kroger's office, I had experimented with resisting his suggestions and had found that I could do so very easily. This I know, is old stuff to any student of psychology, but for me as a layman inevitably influenced to some extent by Hollywood ideas of hypnosis, it was a reassuring experience.)

"Dr. Kroger left the labor room then and my husband came in. I was perfectly conscious of his presence and glad that he was there holding my hand, but I felt no desire to communicate with him or with anyone except insofar as they could be of help to me in doing my job. That was the one and only thing that concerned me—producing my baby.

"My contractions were coming so fast that there was almost no space in between. I heard my husband tell the doctor that they were about one minute apart. Presently without thinking whether or not I had reached the end of the first stage, I found myself bearing down. This was not a planned action; I simply found myself doing it. My breathing was extremely heavy and I heard myself making the strange grunting noise with each push that had frightened me when I was delivering my first baby. After a few of these, I felt the bag of waters break. Dr. Kroger examined me; I was transferred to a cart and taken to the delivery room. I remember feeling very annoyed at the interruption in my work caused by the transfer to and from the cart.

"On the delivery table I had no interest in anything but the one job of pushing. Much as I wanted the baby I don't believe I was thinking any further ahead at that stage than just the pushing job. I was certainly not comfortable, but I had no pain. It was simply like the feeling one might have before having the biggest bowel movement one could imagine. I was very calm. Dr. Kroger kept telling me what was happening, how I was progressing, so that I could define every sensation. For the first time in my history of childbirth, I felt that my presence as a human being as well as a reproductive system was being recognized.

"I remember that Dr. Kroger asked me if I wanted to see my baby born and I replied that I did, but later I discovered that in the excitement of feeling the baby born, I forgot to open my eyes so

*At a meeting of the American Psychosomatic Society held on April 28, 1951, Dr. A. G. Mandy read a paper entitled: Is "Natural Childbirth" Natural? He, too, disputes many of Read's contentions.

that I might see it as well. There was a tremendous feeling of tension just before the head was born, but I do not remember having any fear of bursting as described by some of Dr. Read's patients, possibly because I had been prepared for it by their remarks. Once the head was born, I felt the body slither out without any further effort. I felt tremendously relieved and satisfied. I opened my eyes and saw Dr. Kroger holding my little girl as messy and wiggly and still attached to me by her cord. I felt such a surge of affection and pity that I was surprised at myself. I realized then what a real crime it is to deprive a woman of consciousness at the birth of her child. There is a vital emotional need to experience fully the final and most dramatic act in the creation of a life. When the continuity is broken, the process does not seem completed; the end product—the child—seems somewhat remote. There is not that easy transition from thinking of the child as a concept or as a physical part of oneself to recognizing it as a product of one's body, yet at the same time, irretrievably separate. The transition is, at best, a tremendously complicated one: it is difficult to part with one's self. Yet, since the parting is inevitable, how much better to experience it fully at the moment of its physical happening, so that it is faced at once and known, then to drag the need for it through one's subconscious long after the child is born.

"It seems to me a curious scientific lag that doctors and nurses still do usually carry on their activities as though they believed in the old theory that mind and body are separate and their concern is exclusively with the body. This is especially surprising when it concerns maternity cases, since the whole process of conception, prenatal activity and development, and the birth itself is so highly charged with emotion."

The following patients delivered at the Edgewater Hospital in Chicago also demonstrate the value of "waking hypnosis": strate the value of "waking hypnosis":

Case History—No. 2

Mrs. Y. B., Para I, wished to "see and hear everything," but was desirous of a "painless labor." She had a persistent R. O. P. which was allowed to rotate spontaneously. In spite of very hard contractions, a protrated labor (thirty-six hours) and a very muscular perineum, she "had no pain" even when an extremely deep episiotomy was performed. During its repair she played with her newborn infant and "felt nothing." The interne (Dr. Prager, who had witnessed many deliveries under hypnosis in Germany) remarked that "it was like sewing on a cadaver." There was no indication of a pain reflex noted during the entire repair.

Case History—No. 3

Mrs. B. C., an elderly Para II, was conditioned by waking hypnosis. She had a relatively short and painless labor and felt no pain whatsoever until crowning of the head occurred. No anesthesia was necessary for the episiotomy, delivery and repair. No analgesia was used at any time during her labor. The patient's composure and the smooth course of her labor could only be attributed to the prenatal conditioning she had received.

Case History—No. 4

Mrs. J. B., Para III, gravida II, who was conversant with the Read Method, was conditioned by waking hypnosis during her prenatal period. She received posthypnotic suggestions that she would relax and have no subjective discomfort. Relaxing exercises were not used. The delivery, episiotomy and repair were performed without analgesia or anesthesia.

References

1. Read, G. D.: An Outline of the Conduct of Physiological Labor. Am. J. Obst. & Gynec. 54:702-710, 1947.
2. .....: Correlation of Physical and Emotional Phenomena of Natural Labor. J. Obst. & Gynec. Brit. Emp. 53:55-61, 1946.
3. .....: Childbirth Without Fear, New York, Harper & Bros., 1944.
4. DeLee, J. B.: Year Book of Obst. & Gynec. Chicago, Year Book Pub. Inc., pp. 142-143, 1938.
5. Thoms, H.: Training for Childbirth, New York, McGraw-Hill, 1950.
6. Goodrich, F. W., Jr., and Thoms, H.: Clinical Study of Natural Childbirth. Am. J. Obst. & Gynec. 56:875-883, 1948.
7. Sawyer, B.: Experiences With Labor Procedure of Grantly Dick Read. Am. J. Obst. & Gynec. 51:952-858, 1946.
8. Bloss, J. R.: Causes of Fear Among Obstetric Patients. J.A.M.A. 144:1358, 1950.
9. Reid, D. E., and Cohen, M. E.: Evaluation of Present Day Trends in Obstetrics. J.A.M.A. 142:615-623, 1950.
10. Walser, H.: Fear, an Important Etiological Factor in Obstetric Problems. Am. J. Obst. & Gynec. 55:799-805, 1948.
11. Freedman, L. Z. and Masius, V. M.: The Question of "Painless" Childbirth in Primitive Cultures. Read before the Am. Orthopsychiatric Assn., April 5, 1949, Chicago.
12. Wolberg, L.: Medical Hypnosis, Vols. I and II. New York, Grune & Stratton, 1948.
13. Estabrooks, G. H.: Hypnotism. New York, E. P. Dutton & Co., Inc., 1943, p. 87.
14. Brenman, M., and Gill, M. M.: Hypnotherapy. New York, Josiah Macy, Jr. Foundation, 1934.
15. Schneck, J. M.: Hypnosis in Modern Medicine. St. Louis, C. V. Mosby & Co., in press.
16. Kubie, L. S.: The Use of Induced Hypnogogic Reveries in the Recovery of Repressed Amnesic Data. Bull. Menn. Clin. 7:172, 1943.
17. Erickson, M. H.: Hypnosis: A General Review. Diseases of the Nervous System 2:13-18, 1941.
18. Watkins, J. G.: Hypnotherapy in War Neurosis. New York, Ronald Press, 1950.
19. Kroger, W. S., and DeLee, S. T.: The Use of the Hypnoidal State as an Amnesic, Analgesic and Anesthetic Agent in Obstetrics. Am. J. Obst. & Gynec. 46:655-661, 1943.
20. Abramson, M., and Heron, W. T.: An Objective Evaluation of Hypnosis in Obstetrics. Am. J. Obst. & Gynec. 59:1069-1074, 1950.
21. Newbold, G.: The Use of Hypnosis in Obstetrics. Brit. J. of Med. Hypnotism. 1:36-38, 1949.
22. Weinstein, J.: Hypnotism in Dentistry. Brit. J. of Med. Hypnotism. 2:33-49, 1951.
23. Burgess, Thomas O.: Lectures and Demonstrations. Am. Soc. of Psychosomatic Dentistry. Concordia College, Moorhead, Minn. April 22-July 1, 1948.
24. Heron, W. T.: Hypnosis in Dentistry, Northwest Dentistry. 28:154-158, July, 1949.
25. DeLee, S. T.: Trends in Natural Childbirth (in publication).
26. Ruch, W. A.: Discussion to Mandy, A. J.; Farkas, R.; Schar, E.; and Mandy, T. E. The Natural Childbirth Illusion, South. Med. J. 44:527-532, June, 1951.
27. Wells, W. R.: The Extent and Duration of Posthypnotic Amnesia. J. Psychol. 9:137-151, 1940.
28. Brenman, M., Gill, M. M., and Hecker, F. J.: Alterations in the State of the Ego in Hypnosis. Bull. Menn. Clin. 11:60-66, 1947.
29. Loomis, A. L., Harvey, E. N., and Hobart, G.: Brain Potentials During Hypnosis. Science 83:239-241, 1936.
30. Bass, M. J.: Differences of the Hypnotic Trance from Normal Sleep. J. Exper. Psychol. 14:383, 1930.
31. Georgi, F.: Beitrage z. Kenntnis des Psychogalvanischon Phanomens. Arch. f. Psychiat. v. Nervenkr. 62:571-597, 1921.
32. Dorcus, R. M.: Effect of Suggestion and Tobacco on Pulse Rate and Blood Pressure. J. Exper. Psychol. 8:297-309, 1925.
33. Nygard, J. W.: Cerebral Circulation Prevailing During Sleep and Hypnosis. Psychol. Bull. 34:727, 1937.
34. Janet, P.: Psychological Healing. New York,

The Macmillan Co., 1925.
35. Jacobson, E.: Progressive Relaxation. Chicago, University of Chicago Press, 1929.
36. DeLee, J. B., and Greenhill, J. P.: Year Book of Obst. & Gynec. Chicago, Year Book Pub. Co., 1939, p. 164.
37. Greenhill, J. P.: Personal Communication.
38. Emge, L. A.: Editorial Comment, Mod. Med., Feb. 1, 1947.
39. Mandy, A. J., et al.: The Natural Childbirth Illusion, South. Med. J. 44:527-532, June, 1951.
40. Rosen, H.: The Hypnotic and Hypnotherapeutic Control of Severe Pain. Am. J. of Psychiat. 107:917-925, June, 1951.
41. Rodway, H. E.: Statistical Study of Effects of Exercises on Childbearing. J. Obst. & Gynec. Brit. Emp. 54:77-85, Feb., 1947.
42. Abramson, M., and Heron, W. T.: An Objective Evaluation of Hypnosis in Obstetrics. Am. J. Obst. & Gynec. 59:1073, 1950.
43. Kroger, W. S., and Freed, S. C.: Psychosomatic Gynecology; Including Problems of Obstetrical Care. Philadelphia, W. B. Saunders Co., 1951.
44. Schmitz, K.: Was Ist, Was Kann Nützt Hypnosis? Munich, J. F. Lehmann, 1951.
45. Wolff, G.: Der Geburtshilfliche Dammershlaf in Hypnose, Mit Besonderer Berucksichtigung Seiner Technik. Arch. f. Gynak., 129-23:65, 1926.
46. Shiskkova, V. N. et al.: Psycho-prophylactic Techniques in Painless Labors. Akush. Gin 2:25-29, Mar.-Apr., 1951.
47. Koganov, M. I.: Painless Labors by Suggestion Without Preliminary Hypnosis. Akush. gin. 2:31-34, Mar.-Apr., 1951.
48. Karabel 'nik, B. K. et al.: Results of Psychoprophylactic Method of Painless Labor. Akush. Gin 2:29-31, Apr.-Mar., 1951.
49. Kroger, W. S. and Freed, S. C.: Psychosomatic Gynecology; Including Problems of Obstetrical Care. Philadelphia, W. B. Saunders Co., 1951, pp. 135-139.

636 Church St.

Say Chronically Ill and Disabled Could and Should be Employed

There are approximately 2,000,000 physically handicapped persons in this country who could and should be rehabilitated and placed or advanced in employment, it was pointed out in a recent issue of the *Journal of the A.M.A.*

The manpower situation generally is much more critical today than it was in 1940, it was stated in a report to the Commission on Chronic Illness by Howard A. Rusk, M.D.; James F. Garrett, Ph.D.; Henry Viscardi Jr., B.S., and Eugene J. Taylor, M.A., all of New York.

In 1940, they said, there were 8,000,000 unemployed persons, while in May, 1951, there were only 1,609,000. Defense employment has risen from 2,000,000 at the start of the Korean hostilities to approximately 6,000,000 at the present time, with an additional 2,000,000 defense workers needed during this year. A high percentage of these workers must come from the ranks of the physically handicapped, they added.

It was clearly demonstrated during World War II that the disabled compete successfully with their more fortunate fellow workers, the authors pointed out, although industry as a whole has discriminated against hiring the chronically ill and disabled worker because of false assumptions that he was less efficient and more accident-prone. The strongest supporters of the utilization of chronically ill and disabled workers are those concerns that have hired large numbers of such workers, they stated, adding:

"However, this end result of placement into competitive employment must be predicated upon an adequate rehabilitation program which takes into consideration not only the physical, but also the psychological, social and vocational aspects of the client.

"The vocational placement of persons with chronic illness and disability is a reflection of our basic democratic beliefs. It stresses the fact that we are dealing with individuals who are not different basically from one another, but who possess various degrees of ability. It emphasizes the slogan of placement for the disabled — 'Ability, Not Disability, Counts'."

The Commission on Chronic Illness was founded by the American Medical Association, the American Hospital Association, the American Public Health Association and the American Public Welfare Association.

Lateral-Slit Circumcision

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In a previous article introducing the use of lateral slits in circumcision I wrote: "Textbooks on General Surgery and Urology described many methods of performing circumcision. An old saying has it, that where there are many methods for treating a condition, it usually indicates dissatisfaction with those at hand. No mention has been made anywhere of the use of lateral preputial slits, in contradistinction to dorsal or ventral slits."

Fig. 1
Prepuce on moderate stretch. Clamp applied at proper angle.

Partial removal of the prepuce is not the aim of the surgeon. Enough skin must be removed that the area may be kept clear of smegma collections. Circumcision is now recognized as a prophylactic against cancer. The use of clamps to make up for lack of skill in carrying out a "fussy" procedure is resulting in partial resections and may well be anti-prophylactic in this regard.

The use of lateral slits makes circumcision simple, rapid and avoids removing too much or too little. Since its introduction I have modified the operation to simplify it still more. There are other advantages which I will describe below.

Advantages of Method The preputial blood supply is from the dorsal artery which runs forward on the dorsum. Before reaching the glans it divides into two branches to supply the glans and prepuce. The venous return is to the superficial dorsal vein. Thus we find the vessels of greatest caliber on the dorsum of the penis in the mid-line. On the ventral side, the artery of the frenulum is an important blood vessel to avoid. The usual approach to circumcision by dorsal and/or ventral slit may very easily injure them. By the lateral slit method a dorsal and a ventral flap is created. These are resected under vision all the way. It is easy to follow the margin of the corona and the frenum stands out clearly to be avoided.

Before applying the clamp, the prepuce is pulled forward ahead of the glans which

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causes the outer skin to ride over and away from its inner leaf. After the extended prepuce has been cut away, the skin retracts over the shaft and the glans

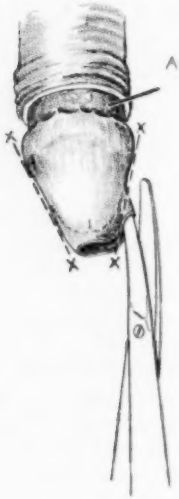


Fig. 2
Showing lateral slits of inner preputial leaf.

is still covered by the inner leaf. There is a denuded area between the two which contains many undisturbed blood vessels. The looseness of the tissues in this locale allows them to ride out of harm's way. Bleeding will be found to have been minimal and largely from the skin, requiring few ligatures.

Postoperative discomfort is further reduced, because of lack of unnecessary manipulation and handling of tissues. The frenular artery is preserved, avoiding postoperation edema and increased sensitivity to pain.

Modification of Our Previous Method The prepuce is pulled forward over the glans penis under moderate tension to insure the proper amount of skin removal. The greater the tension, the greater will be the resultant skin loss. With this in mind, place a clamp in front of the penis obliquely across the extended prepuce and parallel to the axis of the glans. With sharp knife or scissors remove the excess of preputial tissue. The inner leaf of the prepuce remains to cover the glans and in its removal the lateral slit is used to great advantage. Pick up one lateral margin at 3 o'clock with two clamps. Incise between them obliquely upwards and backwards toward the coronal sulcus. Repeat this on the other side at 9 o'clock. A dorsal and a ventral flap have now been formed. When the former is turned back and put on stretch, the coronal sulcus and margin stand out. The frenular attachment and its reflexion are prominent on the ventral side. Removal of the proper amount of mucous membrane is very easy with these landmarks in view. Just follow the curve of the corona and keep below the frenum.

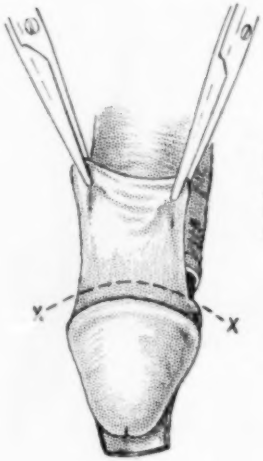


Fig. 3
Dorsal flap reflected. Line of excision follows corona under vision.

The wound margins will fall together naturally. There should be minimal suturing and bleeding.

The usual dressing is applied and held in place by long sutures. Instead of vaseline or boric acid gauze, a cleaner wound

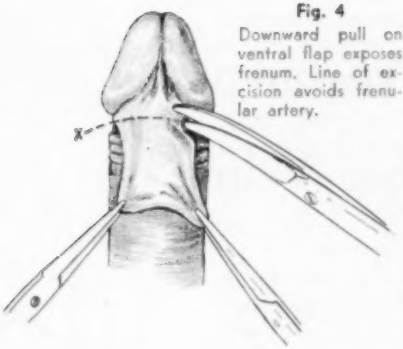


Fig. 4
Downward pull on ventral flap exposes frenum. Line of excision avoids frenular artery.

results from the use of sulfathiazole ointment.

Summary

An improvement on previous methods of circumcision is offered. The use of lateral slits to incise the inner leaf of the prepuce creates two flaps, one dorsal, the other ventral. We have indicated how simple it is to remove the excess by following the anatomical landmarks. Bleeding is minimal. Very few sutures are necessary. All this adds up to greatly reduced postoperative discomfort and early healing.

1142 Chapel Street

National Matching Plan to Appoint Interns is Success

A national matching plan has been used for the first time this year to place new interns in hospital appointments. The plan was designed to help lessen the confusion which has occurred in the past when hospitals were seeking 10,000 interns from a graduating class of 6,000.

Under the plan sponsored by the National Interassociation Committee on Internships, hospitals and students contact each other freely during the student's senior year. Students apply for any internship which interests them and visit hospitals of their choice. After these preliminaries have been completed, students and hospitals file confidential ratings with the Committee. The two are then matched and the student receives the internship he prefers most, if this agrees with the hospital's rating of him.

Success of the plan is indicated by the fact that 84 per cent of this year's new interns were matched with the hospital they indicated as their first choice. An additional 10 per cent received their second choice placement. Seventy-four per cent of the hospitals received the student they designated as their first choice.

In the past the short supply of new interns caused much confusion in attempts of students and hospitals to get together. Some hospitals exerted a variety of pressures to obtain the interns they needed. Students, anxious not to be left out of choice positions, frequently made unwise or hasty decisions.

In an article in the May 1952 issue of *The Journal of Medical Education*, Dr. F. H. Mullin, Dean of Chicago Medical School and chairman of the internship committee and John M. Stalnaker, director of studies for the Association of American Medical Colleges, Mr. Stalnaker quotes the dean of one medical school, who said, "Never before in my 17 years of experience have internship appointments been handled so smoothly."

In March of this year punched rating cards were run through a machine which automatically matched hospitals and interns, in most cases with their first choices.

Approximately 95 per cent of this year's interns participated in the plan. Some 98 per cent of the hospitals offering internships were participants.

Injection Treatment of Varicose Veins

Injection treatment of varicose veins can be a very successful and safe therapeutic procedure if it is employed in properly selected cases.

Anatomy For the understanding of the principles of injection treatment it is helpful to consider the anatomy of the superficial veins of the lower extremity. The superficial veins consist of a large number of branches two of which are found consistently and with regularity, the long saphenous and the short saphenous veins (v. saphena magna and v. saphena parva). The other veins show great irregularity. Figure 1 shows the most common appearance of the superficial venous system of the lower extremity. Fig. 1. The superficial veins are connected with the deep system through communicating branches of which there are usually two on the thigh and three or more on the leg below the knee. Fig. 2. Both the superficial and deep veins have valves which prevent the retrograde flow of blood in normal specimens.

Symptoms Varicose veins usually cause dull aching pains in the affected leg upon standing but in many instances especially in the early stages there might be only a tired feeling. Night cramping and cramping in cold water of the calf muscles is also characteristic for varicose veins.

Inspection Inspection should be made with the patient in standing position. The dilated veins appear most frequently on the inner side and posterior aspect of the calf and knee and on the inner side of the

Fig. 1. The most common pattern of the superficial veins of the lower extremity.

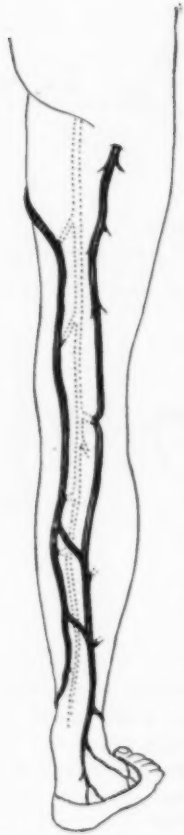


Fig. 2. Schematic representation of the communicating veins betwen the superficial and deep venous system.

thigh. In advanced cases the veins are tortuous, the skin above them shiny, pigmented and atrophic. There are occasionally dilated capillaries (spider burst) on the skin. Lymphedema, erythema, eczema, phlebitis and ulceration might accompany the varicosities.

Differential Diagnosis Arteriovenous aneurism. In this case the varicosity has been present at birth or in early childhood; the affected leg is warmer and larger.

Varicose ulcer has symmetrical outline, sloping edges, diffuse and extensive pigmentation, marked inflammation, coarse granulomatous base with purulent exudate.

Luetic ulcer has irregular outline, punched-out edges with serous exudate.

Tuberculous ulcer has undermined edges, grayish necrotic exudate.

Before proceeding with the injection therapy the condition of valves of the superficial and communicating veins and the patency of the deep venous circulation should be determined.

Tests for Determination of the Venous Circulation of the Lower Extremity

Trendelenburg Test The veins of the lower extremity are emptied by elevating the leg of the patient, who is in reclining position. The internal saphenous vein is compressed by the fingers of the examiner near the saphenofemoral junction. The patient is instructed to stand up and the time required for filling of the varicosities is observed without releasing the pressure. If the veins remain empty for 20 to 30 seconds the pressure is relieved. If when the pressure is relieved upon the saphenofemoral junction, the blood flows with a gush downward, the test is positive indicating that the valves of the saphenous vein are incompetent. Fig. 3 and 4. If the veins fill up while the pressure is maintained over the saphenofemoral junction during the first 30 seconds after the patient assumes erect postion, the valves of the communicating veins are incompetent; this is a negative Trendelenburg test. If

Fig. 3. Trendelenburg test.

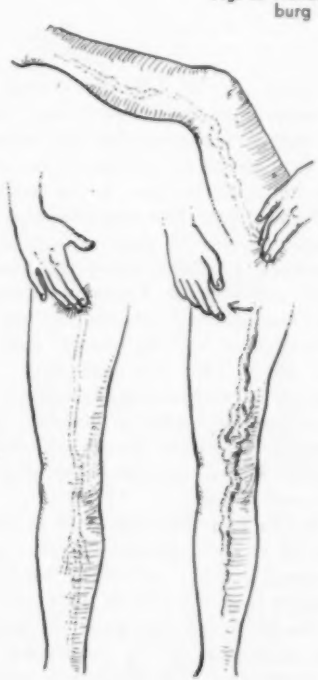
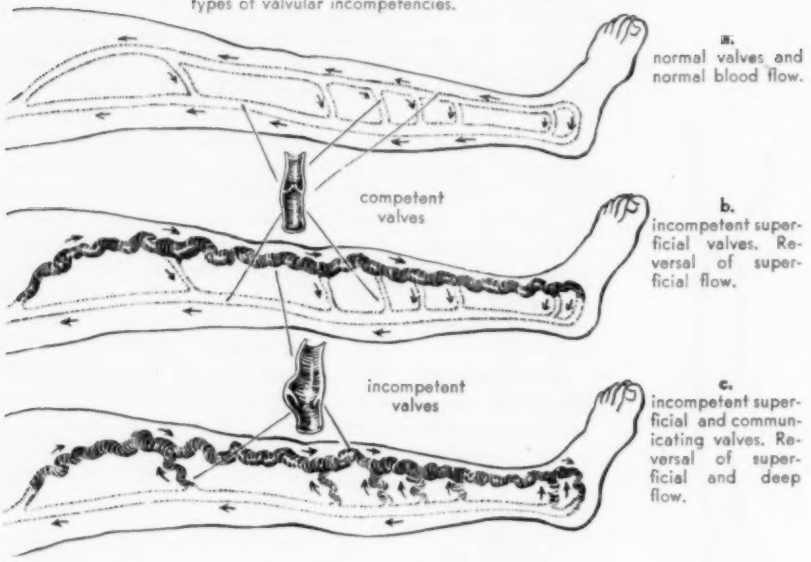


Fig. 4. Schematic representation of the various types of valvular incompetencies.



the veins also fill from above when the pressure is removed then the test is doubly positive indicating that the valves of the long saphenous vein and those of the communicating branches are incompetent.

Perthes' Test This test determines the competence of the deep circulation. A tourniquet is placed above the knee to block the backflow from the saphenous vein from above. Vigorous bending and stretching of the leg should suck out the blood from the superficial veins through the communicating branches into the deep veins; thus, if the deep circulation is competent the superficial veins should become less distended after the exercise. Fig. 5.

Pratt's Test This test gives an indication as to the competence of the communicating branches. An elastic bandage is applied from the foot to the upper part of the thigh and then above the bandage the saphonous vein is compressed with a tourniquet. The bandage is removed from the thigh downward. A sudden bulging of the veins indicates incompetence at that point. This point should be marked and before further removing the bandage a second bandage is applied to the thigh compressing the upper veins. While the first bandage is being gradually unwound, the second bandage is wound around the extremity. Each incompetent perforating branch which will be revealed by a sudden protrusion of the veins at that point should be marked on the leg. Fig. 6.

The urine should be examined for sugar and albumin before proceeding with the injection.

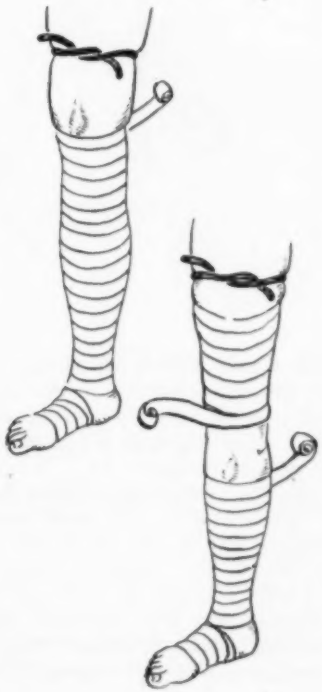
Technique It is preferable for the patient to stand on the examining table or on a chair. In most cases it is not necessary to apply a tourniquet. The skin is cleansed with 70% alcohol over the site of the proposed injection. By a downward pressure of the thumb, which is placed on the skin at the side of the vein to be

Fig. 5. Perthes' test.

injected, the skin is pulled tight, thereby fixing the vein in position. Fig. 7. A 23 gauge short beveled needle, which is attached to a 5 cc. Luer lock syringe containing 5% sodium morrhuate is inserted into the vein. The plunger is slightly withdrawn thereby allowing blood to enter the syringe to ascertain that the needle is properly in the lumen of the vein. The injection of the sclerosing substance is made slowly into the vein. The first time not more than 0.5 cc. is injected. If the patient does not show any allergic reaction then on subsequent treatments up to 10 cc. can be injected according to the size of the vein. Two or three portions of the same vein can be injected in one sitting, starting at the lowest segment of the vein. As many as four veins can be injected in one session but the total amount of the sclerosing solution should not exceed 10 cc. After injection the needle is rapidly withdrawn and a gauze compress is applied immediately. Fig. 8. If large varicosities have been injected application of an Ace bandage will keep the patient free from a bearing down pain. If the vein has been pierced through by the needle or if the needle slips out of the vein it is better to defer the injection of that vein for another session as the sclerosing solution might ooze out through the puncture. Injections can be made twice weekly.

After the injection the vein becomes painful, tender and indurated within 12-36 hours and the surrounding tissue be-

Fig. 6. Pratt's test.



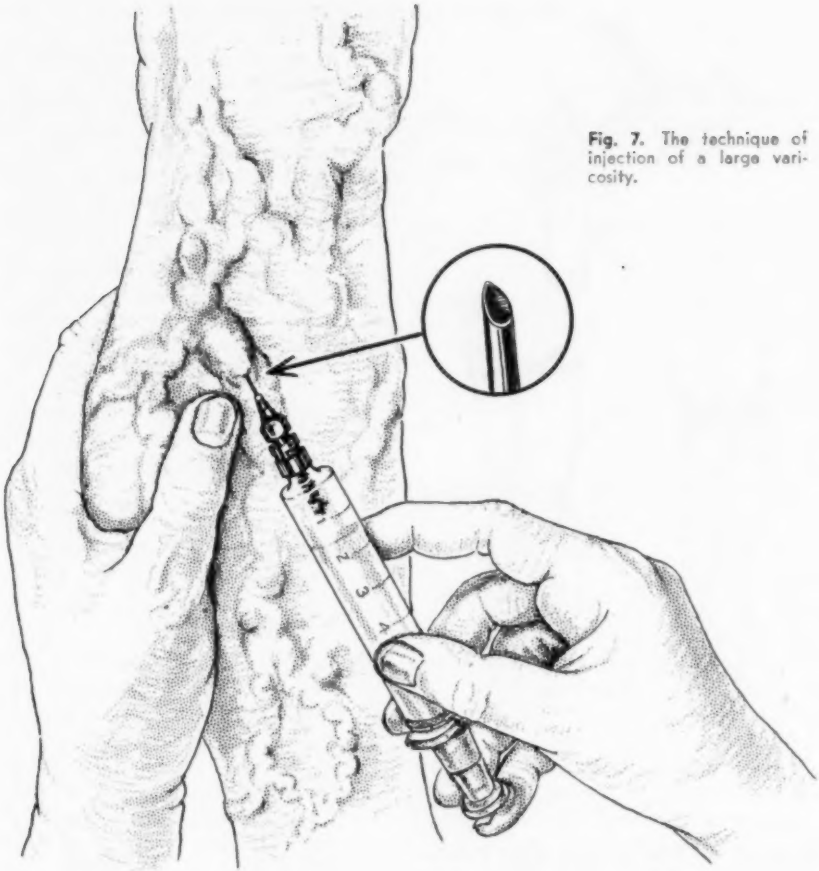


Fig. 7. The technique of injection of a large varicosity.

comes slightly reddish and swollen. The pain disappears within a week. In 4-5 weeks there is only a hard cord at the site of the injected vein, which diminishes and entirely disappears within 9 weeks.

Injection of Hair Veins (Spider Burst). The spider burst veins are firmly attached to the skin and they do not roll away from the needle. For injection of these one uses a 30 gauge short beveled needle that is attached to a 2 cc. Luer lock syringe containing sodium morrhuate. One uses a magnifying glass and a strong headlight to avoid shadows. The only way one can ascertain that the needle is in the vein is by observing that the blood leaves the vein when the sclerosing solution is injected. If a wheal appears the needle is not in the vein and the injection should be stopped immediately. When the small vessel is emptied of blood and starts to become distended a sufficient amount has been injected and the injection should be stopped. The needle should be pushed through the skin, the syringe should be disconnected and the needle should be left

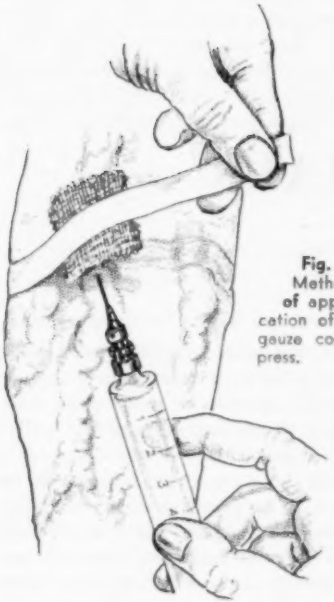


Fig. 8. Method of application of a gauze compress.

in place for several minutes. A large number of these small vessels can be injected in one session. After the treatment an elastic bandage should be applied. Fig. 9.

Complications Sodium morrhuate causes ulcerations of the skin on rare occasions if the vein is missed and the surrounding tissue injected.

Contraindications to Injection Treatment of Veins

1. Thrombosis of the deep veins.
2. Phlebitis.
3. Pregnancy.
4. Systemic diseases (Active tuberculosis, acute cold, cardiovascular disease, diabetes).
5. Disturbances of the arterial circulation. (Buerger's disease, Raynaud's disease, arteriosclerosis).

Fig. 9. Technique of injection of a spider burst.

Care of Ileostomy

The fitting of a rubber adhesive type of bag for the ileostomy patient is described in a report in *Modern Med.* [*20*:106 (1952)] by Ruthberg. The skin is first cleaned with benzine, and a gauze square saturated with soap containing hexachlorophene is used to clean the benzine from the skin, followed by a water rinse.

Pyoderma of the Newborn

An outline of measures to prevent pyodermas in newborn babies is presented by Guilbeault in *Union Med. Canada* [*81*:164 (1952)]. Babies have only oil baths while in the hospital. The body is then covered with an antiseptic powder containing a quaternary ammonium antiseptic.

EDITORIALS

Possibilities of the Navy's Human Centrifuge

In its study of the blackouts experienced by pilots the Navy's Air Development Center near Philadelphia has constructed "a human centrifuge" at a cost of $5,000,000. The centrifugal force exerted on a subject's vascular physiology can be stepped up to as much as 40 times the force of gravity. The motor swings the gondola in a 300-foot circle up to 175 miles per hour.

We venture to suggest possible therapeutic uses for this device which would more than justify the cost involved. What we have in mind is the effect upon edema and peripheral vascular ailments. One may conjecture that such a force, *depending upon the posture of subjects,* would have beneficial effects in a number of abnormal conditions, as a measure at least auxiliary to other resources.

To make this clearer, imagine the physical effect upon a human subject whirled in a horizontal plane while secured to a circular frame; with head toward center the vascular effect invoked would obviously be to unload labyrinthine hydrops (Ménière's syndrome); with feet toward center the effect would be to unload peripheral (lower extremities) edema.

Attention Malthusians!

Whenever we read or hear about the likelihood of the diminishing food supply of the world threatening subsistence and population growth, we think of the introduction of improved machinery which doubled production in fifty years as it reduced the hours of labor by nearly one half. This happened at a time when people believed "that the world would starve unless it could enlist the labor of everyone down to the age of four years." Nowadays such children are in school.

With America's creative genius why be downhearted?

Connoisseurs, Magic, and Blends

A recent Congressional inquiry disclosed some interesting facts about the "blended" whiskies that the American public is buying and drinking because of intensive indoctrination by large-scale advertising interests; gullible consumers are persuaded to like and imbibe these overtouted whiskies as the most suave, smoothest, mellowest choice of alleged connoisseurs. It was stated in the course of the inquiry that 70 per cent of the nation's drinkers were captives of four big-time distillers controlling the trade.

But the nub of the inquiry was the interesting details about blending; in blending, it seems, a product is turned out consisting perhaps of 35 per cent whiskey and 65 per cent raw alcohol.

The indoctrination consists in making the drinkers believe that there is some

magic in so-called blending that produces the suaveness, smoothness and mellowness; one would suppose that toxicity did not figure at all; if one accepts this flapdoodle as valid one is a connoisseur, forsooth!

The magic is all in the promoter's skulls and their cash registers; they *are* magical.

There is no magic in the hospital-ward or pathological-department aftermath.

The Problem of Noise Deafness

Modern machinery, as used, for example, in the drop-forge and jet-plane industries, is so noisy that otologists are now giving greater consideration than ever to noise abatement, as by re-design, substitution of other industrial processes for noisy ones, faster rotation of workers unduly exposed, etc. The use of ear plugs or defenders is assuming much importance and some ingenious devices have been introduced whereby the intensity of the noise as it passes through the ear canal is markedly lessened; but it appears that a wholly satisfactory device has not been produced.

While metallic (lead), phosphorus and dust hazards have been eliminated or controlled, noise deafness has become a very serious problem in industry, with attention centered on prevention. Much further research at the industrial plants themselves is required.

Meyer S. Fox of Milwaukee finds that noise levels above 90 decibels expose the worker to acoustic trauma. This level of 90 is exceeded in airplane factories, for example, by a dozen incidental processes of manufacture (calculated at 3-foot distance).

A loud automobile horn at 23 feet registers at 100 decibels.

The limit of the ear's endurance is 130 decibels—for a short time.

An excellent discussion of the medical, economic, and social aspects of industrial noise, by Dr. Fox, who is chief of the ear, nose and throat department of Mount Sinai Hospital, Milwaukee, Wisconsin, is to be found in the *American Journal of the Medical Sciences*, 223:447-460, April, 1952.

Medical Educators Need Help of Lay Men

Some medical educators are experts in the business of losing friends and irritating people, according to Charles Dollard, president of the Carnegie Corporation of New York.

On the other hand, Dollard says, "every layman who gets some insight into the problem which deans of medical colleges have to face has an irresistible tendency to drop what he is doing and help them make both their goal and their dilemmas intelligible."

Dollard, writing in a recent isue of *The Journal of Medical Education*, says part of the difficulty is that medical educators suffer from "alumni trouble." He offers the theory that perhaps too much deference is paid to a few vocal alumni and not enough to the much larger body of quiet and substantial men who are willing to work with educators for the things medical schools need to do a better job.

Dollard stresses the fact that medical education, which affects everyone, deserves the support of intelligent laymen. To gain this support medical educators need to do a more effective job of telling their story to the public. He believes greater integration of medical education with the social sciences will come when their common goals are more fully realized.

PUBLIC HEALTH, INDUSTRIAL MEDICINE AND SOCIAL HYGIENE

EARLE G. BROWN, M.D.*

Recent Developments in the Prophylaxis of Rabies

H. Koprowski and H. R. Cox (*American Journal of Public Health*, 41:1483, Dec. 1951) discuss the disadvantages of the Pasteur (vaccine) prophylaxis of rabies, especially if the vaccine is given in all cases of possible exposure to rabies, before it is definitely known whether the animal is rabid or not. The relatively high incidence of neuroparalytic complications is the chief objective in the vaccine treatment, especially in those cases in which the exposure to rabies is not definitely proved. An antirabies serum was developed as early as 1889, but its value has not been recognized until recently. In 1948 concentrates of antirabies serum were prepared for clinical use and sent to physicians for trial with a questionnaire in regard to its use to be filled out and returned. The replies received (about 75 per cent of the questionnaires sent out) show that 48 persons have been given the serum, but 11 of these persons were bitten by non-rabid animals. In the 29 persons given the antiserum who were bitten by animals proved to be rabid, phenolized vaccine treatment was also employed in most instances, but not in all. There was no death from rabies in this series. In the authors' opinion, the use of antirabies serum should be considered in cases of exposure to rabies; and the serum should be given as promptly as possible after exposure, preferably within twenty-four hours and always within seventy-two hours. Probably it is advisable to combine vaccine treatment with the serum at present; vaccine treatment may be begun twenty-four hours after the administration of serum, but as the rabies antibodies persist in the blood for seven to ten days after serum administration, the injections of vaccine can be begun within this time if the animal is proved to be rabid. The duration of vaccine treatment can also be shortened with the use of the antiserum, thus diminishing the risk of neuroparalytic complications. The authors also consider that antiserum is of value in cases where persons who have been bitten by animals that are probably not rabid have a great fear of rabies; in such cases the administration of the serum allays the fear until it can be definitely proved that the animal does not have rabies; or if the animal does have rabies, vaccine treatment may be started before immunity induced by the treatment is lost. Further study and careful analysis of every case in which antirabies serum is used are necessary for "the ultimate evaluation" of the serum treatment.

Brown

* Commissioner of Health, Nassau County, N. Y., Cons. Contagious Diseases, Meadowbrook Hospital, Hempstead, N. Y.

COMMENT

In case of severe exposure, especially of the face, in instances when the biting animal is known or strongly suspected to have rabies, the prompt administration of antiserum in conjunction with the vaccine would appear to be the preventive treatment of choice. A prompt passive protection is given while waiting for active immunization to be produced by the vaccine.

Regarding reactions following the administration of serum, the author makes the following statement:

"Serum sickness was noted in about 20 per serum concentrates, but a much greater procent of those who were treated with rabbit portion was observed in those who received sheep serum concentrates. The production of serum in sheep has therefore been discontinued in favor of either horse or rabbit serum concentrates. Of course, the physician in charge of the case, faced with a choice of three evils, should decide to use antiserum, since serum sickness would be preferred to rabies or a neuroparalytic accident should it turn out that the animal is rabid."

E.G.B.

Problems in the Future Control of Syphilis

E. V. Thomas (*Canadian Journal of Public Health*, 42:451, Nov. 1951) states that since World War II there has been a rapid decline in the incidence of early syphilis in most countries in Europe and in America, which is largely attributable to use of penicillin in the rapid treatment of early syphilis. With this method of rapid treatment it is not difficult to complete adequate treatment in most cases, i. e., "case holding" is not "a major problem" as it was when prolonged treatment was necessary.[1] The follow-up of treated patients, however, is still a problem, as after treatment is completed, patients should be kept under observation at monthly or bimonthly intervals because of the possibility of relapse or reinfection.[2] "Case finding" has always been a problem in the control of syphilis and is still the major problem. It involves education of the public, careful interviewing of persons with early syphilitic infection in regard to contacts, and bringing contacts to examination and treatment.[3] The modern methods of the rapid treatment of syphilis may create new problems in control; the public may lose interest because they believe the disease is of less serious consequence because of these new methods of treatment. The medical profession, the author believes, is also losing interest in the problem of syphilis. The public health departments must accept the greater responsibility for the diagnosis and treatment of syphilis, working in close cooperation with clinics and physicians treating the disease. Research in syphilis should also be promoted by public health departments.

COMMENT

Follow-up of patients given rapid treatment should be intensified since easy treatment and apparent cure lulls these individuals into a false sense of security. Lumbar puncture should be done to detect early nervous system syphilis. Careful questioning of the case will reveal leads which if followed will result in finding the source of infection. Subsequently, the contact is also placed under treatment.

E.G.B.

Dermatitis of the Hands in Industry

N. N. Epstein and J. R. Allen (*California Medicine*, 75:300, Oct. 1951) report that in the examination of 328 persons to determine whether the dermatological condition was due to occupational causes, the dermatosis was found to be of industrial origin in two-thirds of these cases. The most frequent type of dermatosis in these cases was contact dematitis in 128 cases, in all but 7 of which the hands were involved. In these cases the dermatitis was due to sensitization to or irritation from substances contacted at work. In patients observed in private practice during the same period, only 9 per cent of dermatologic lesions involved the hands. In order to make a satisfactory diagnosis of the nature of any type of eruption in the hands and to determine whether it is of industrial origin or not, the physician must have some knowledge of the conditions of the patient's occupation; a careful history must be taken with special attention to

the relation of the time of exposure at work to the development of the eruption, and the sites of maximum exposure in relation to the location of the lesion; a complete examination of the skin should also be made. In addition two "specific procedures" should be employed; microscopic examination and cultures for fungi; and skin patch tests. In making the skin patch tests, the substance used for the test must not be employed in a concentration that is known to be a primary irritant. But the skin patch test, while of aid in diagnosis, is of definite diagnostic significance only if it accords with the clinical findings. Workers in industries exposed to substances that are known to be important causes of contact dermatitis of the hands should be protected by the wearing of gloves, where possible, or by the use of protective creams, and the avoidance of "harsh" soaps or irritating solvents for cleansing the skin.

COMMENT

The basic principle in the prevention of industrial dermatitis is the separation of the irritant from the worker. This may be accomplished either mechanically by the use of hoods, suction apparatus or other devices to prevent irritating substance from reaching the worker, or by personal protection such as protective clothing and protective ointments which are non-irritating and non-sensitizing.

Louis Schwartz in the **Manual of Industrial Hygiene and Medical Services in War Industries,** 1943, enumerates the following six classes of protective applications and gives a type formule for each ointment:

(1) A simple vanishing cream which when rubbed into the skin fills the pores with soap which facilitates the removal of soil when washing after work.

(2) The "Invisible Glove." An ointment which leaves a film of water soluble or water insoluble resin, or wax, on the skin and thus prevents the irritant from touching the skin. This is a good protective against dermatitis of the face from the edges of gas masks and respirators.

(3) Protective ointments which cover the skin and fill the pores with a harmless fat to repel water soluble irritants and prevent the entrance of harmful petroleum oils, greases and coal-tar derivatives.

(4) Protective ointments which contain a nonirritant chemical intended to detoxify the industrial irritant.

(5) Protective ointments which cause inert powders to adhere to the skin, forming a protective covering against skin irritants.

(6) Protective application against the photosensitizing action of the heavy coal-tar distillates, distillation residues, and excessive sunlight.

E.G.B.

Vaccination of Human Beings Against Mumps: Vaccine Administered at the Start of an Epidemic

Karl Habel (*American Journal of Hygiene*, 54:295; 312, Nov. 1951) reports a study of the effect of vaccination in a naturally occurring epidemic of mumps among adult males in labor camps, where a high susceptibility to mumps had been demonstrated by specific testing of 21.5 per cent of the population of the camps. A single dose of mumps vaccine was given to 1,344 men in the different camps, and 1,481 men were not vaccinated. This single dose of vaccine increased the serum antibody titer and reduced the incidence of mumps among the vaccinated as compared with the unvaccinated group by 1 to 3. The severity of the disease when it did occur in vaccinated persons was of lesser degree with a lower incidence of orchitis than in the unvaccinated. A second dose of vaccine of a different type (saline type) was given to only a small number of men, so that its prophylactic effect could not be definitely demonstrated but the serum antibody response indicated that this vaccine was more potent than the type used for the first injection (with peanut-oil beeswax adjuvant).

The effect of the vaccination on the spread of the epidemic was also studied, as varying percentages of the men in different camps were vaccinated; it was found that the duration and severity of the epidemic decreased "with the increasing percentage of the population vaccinated." In one camp where 90 per cent of the men were vaccinated the epidemic lasted only

a week (a single case occurring fourteen weeks later); and there was a total incidence of 40 cases per 1000 population. In camps where no vaccine was given, the epidemic continued for fourteen weeks, and there was a total incidence of 131 cases per 1000 population. As with the vaccine used for the first vaccination, the immunity, as shown by the serum antibody titer, developed more slowly than with the saline-suspended vaccine; two doses of the saline vaccine, perhaps at an interval of two weeks, "might be expected to give even better results" than those reported in this study.

COMMENT

As circulating mumps complement-fixation antigens have been demonstrated to increase within one week after inoculation with the vaccine, vaccination of non-immune adults after exposure to mumps is therefore a logical procedure. Epidemics of mumps may be prevented or aborted in segregated populations such as the Armed Forces, schools, asylums, orphanages and among medical students and nurses.

Routine immunization before adolescence is not recommended on the basis that the artificially induced immunity may wane and permit infection to occur at an older age when there is a greater danger from complications.

For active immunization against mumps, two injections of 1 cc. each are given subcutaneously five to ten days apart. Since the vaccine is prepared from the embryonic fluid of chicken eggs, it should not be administered in the presence of allergy to egg proteins.

E.G.B.

Rehabilitation of Persons With Pulmonary Dust Disease

O. A. Sander (*A. M. A. Archives of Industrial Hygiene and Occupational Medicine*, 4:541, Dec. 1951) maintains that the best method of preventing disability from pulmonary dust disease is to reduce the dust hazard in the industry so that the worker can continue on the job for which he is trained. In foundry workers, the progression of silicosis has decreased as the amount of silica dust in the foundry atmospheres has been reduced. The author and his associates have "hundreds" of foundry workers under observation who showed evidence of silicosis in 1933 but who are still continuing their work without difficulty with adequate dust control in the foundry, and special respirator protection on certain jobs. Occasionally workers have been shifted to other jobs, but only a few have had to retire completely. Workers with silicosis must also be protected from respiratory infections, not only tuberculosis but also the common cold; all colds should be actively treated to avoid complicating bronchial and lung infections; chronic sinus infections should also be treated. In the treatment of workers with more advanced silicosis, control of cough, the use of bronchodilator drugs, and the use of intermittent positive pressure breathing treatments described by Gordon and Motley, have been of definite value in rehabilitation, but the author returns "to his original thesis" that with the prevention of the progress of pulmonary disease by adequate dust control and reassurance of the worker who is still at work, "rehabilitation need never be discussed."

COMMENT

The prevalence of silicosis depends upon these factors: (1) The percentage of free silica in the material with which the person works; (2) the fine particles to which it is reduced; (3) the concentration of these particles in the inhaled air; (4) the length of exposure; (5) the presence of retarding substances in the air; (6) past and present respiratory infections; and, (7) evidence required by physicians making the diagnosis.

Occupational health is concerned with the study of individuals in relation to the physical and psychological demands of their occupations, and the work environment in relation to their effects on health. Recent developments in the field of occupational health are largely the outcome of experience gained during World War II when the need for production on the largest scale demanded a national policy for the conservation and the most effective use of manpower. New legislation—The Disabled Persons (Employment) Act, 1944, and the National Insurance (Industrial Injuries) Act, 1946, indicates that in the future attention will continue increasingly to be paid to problems relating to the health and environmental conditions of the worker, emphasis being placed on prevention rather than treatment.

E.G.B.

UROLOGY

AUGUSTUS L. HARRIS, M.D., F.A.C.S.*

Nutritional Substitution Therapy: A New Method Which Prevents Prostatic Surgery in Benign Physiological Hypertrophy

B. F. Sieve (*American Journal of Digestive Diseases*, 18:369, Dec. 1951) describes a method for the treatment of benign prostatic hypertrophy by which surgery can be avoided if the treatment is begun sufficiently early. Before beginning such therapy a complete and detailed medical history must be obtained in each case; careful physical examination must be made including examination of the prostate, with special attention to degree of enlargement, and the presence of irregularities or nodules; a digital rectal examination should always be done followed by proctoscopic or signoidoscopic examination if indicated. The necessary laboratory tests to be made include complete and differential blood counts; urine analysis (preferably of a twelve-hour night specimen); determination of fasting blood sugar, nonprotein nitrogen and cholesterol of the blood. Basal metabolism determinations are also necessary. Prostatic smears are examined after each massage if possible. The treatment consists in a careful regulation of the diet to insure adequate intake of carbohydrate, protein and fat, and also the accessory food factors, vitamins, hormones, amino acids and essential minerals. All foci of infection should be treated, including any such focus in the prostate gland. On beginning treatment parenteral administration of certain vitamins and hormones is usually necessary, as indicated by the results of the preliminary examination in each case; and prostatic massage is employed as necessary; occasional "booster courses" of parenteral treatment are given as the patient is kept under observation. In 100 cases treated by this method, operation for prostatic hypertrophy was rendered unnecessary and the gland was restored to normal in 90 per cent, although early prostatic symptoms had developed in 20 per cent; 7 per cent of the patients did not continue therapy; and in 3 per cent the condition was too far advanced for preventive therapy to be successful. The youngest patient was fifteen years of age; in young patients the prostatic symptoms are usually due to infection. Four cases are reported in detail, representing age groups from twenty to seventy-one years of age and describing the method of treatment in each case; in 2 of these cases hypertrophy of the prostate was prevented; in one, the prostatic hypertrophy was satisfactorily reduced and no operation was indicated. The oldest patient had refused replacement therapy "until too late" and operation was necessary.

Harris

COMMENT

On the basis of general clinical experience in urology, one would naturally be skeptical of the efficacy of the author's method (nutritional substitution therapy in the prevention of benign prostatic hypertrophy).

However, Sieve's work should be carefully studied and followed on a broad scale. Any plan of therapy which would reduce the need

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of prostatic surgery would be one of the greatest discoveries of our time and a blessing to older men so commonly afflicted with prostatism.

The author states that in ninety out of a hundred cases the gland was restored to normal. Certain of these were probably associated with prostatitis, amenable to local and general conservative treatment.

—A.L.H.

Mortality of Various Methods of Prostatectomy

J. E. Byrne (*Journal of Urology*, 67:121, Jan. 1952) reports a study of the mortality of various types of prostatectomy in 347 private patients admitted to one of the St. Louis University Group of Hospitals. The average age of these patients was 67.8 years; the duration of symptoms varied from six months to five years; 147 patients showed acute urinary retention on admission. In 202 cases transurethral prostatectomy was done; there were 11 deaths in this group (5.4 per cent mortality); carcinoma of the prostate was present in 2 of these fatal cases. The average hospital stay with transurethral resection was twenty-four days, and the post-operative hospital stay 14.2 days. In 62 cases, a one-stage suprapubic prostatectomy was done with 4 deaths (including one case of prostatic carcinoma), a mortality rate of 5.4 per cent; the average hospital stay was twenty-five days, including twenty-one days after operation. A two-stage suprapubic prostatectomy was done in 81 cases, with 6 deaths (6.4 per cent mortality). The average hospital stay in this group was fifty-two days, postoperative 34.2 days. In this series of cases, transurethral prostatectomy was the method of choice in most cases without regard to the age of the patient. But in selected cases, suprapubic prostatectomy is still the method of choice. Comparing the mortality rates before and after the use of antibiotics, it was found that there was a reduction in mortality after the one-stage suprapubic prostatectomy but not after the two-stage suprapubic operation, with the use of antibiotics.

COMMENT

This is another statistical report of mortality after prostatectomy using three different methods.

Approximately 57% were done by transurethral procedure with 5.4% of deaths: 16% by suprapubic one-stage route with the same proportion of deaths: and about 26% by two-stage with 6.4% mortality.

The authors state that in certain selected cases, the one-stage is still their method of choice.

Compared with previously published papers, the mortality rate appears to be somewhat higher, in all three groups. Moreover, it is to be noted that even the 'resection' cases required an average post-operative hospital stay of two weeks and the two-stage averaged thirty four days after operation.

The authors are to be commended for their contribution and for their frank presentation of statistical data.

—A.L.H.

Use of Testicular Biopsies in the Differential Diagnosis of Precocious Puberty

E. H. Sobel and associates (*Pediatrics* 8:701, Nov. 1951) report a study of 8 boys showing signs of precocious puberty at an early age. A study of the testes was made by testicular biopsy in 6 cases and at autopsy in 2 cases. In 4 cases, in which the precocious puberty was "a true precocity," the testicles showed large interstitial cells and some degree of tubular maturation; in one of the patients, the tubules were fully mature, fully developed Leydig cells were present in the interstitial tissue and there was active spermatogenesis; in the other 3, the development of the interstitial cells and tubules was less advanced. In 4 cases, the testicles did not show these evidences of precocious development and the masculinization was found to be due to adrenal hyperplasia in 3 cases and to the presence of an adrenal cortical carcinoma in the fourth case. These patients with "adrenal virilism" excreted large amounts of 17-ketosteroids, while in 4 patients with true precocity as

shown by testicular biopsy, only small amounts of 17-ketosteroids were excreted. In the testicular biopsy, the development of the interstitial cells is apparently "the essential feature" that differentiates these two types of precocious puberty.

COMMENT

The authors have presented precise and accurate methods in the differential diagnosis of the etiology of precocious puberty, development and masculinization in young boys. The work merits special study on the part of the urologist who may often be the first one to encounter such conditions.

Testicular biopsy cell examination proves the condition of "true precocity" by the presence of mature tubules and interstitial cells of Leydig. In these, the excretion of 17 ketosteroids is low. In "adrenal virilism", the biopsy is normal (no maturation), but large amounts of ketosteroids are excreted as in cases of adrenal hyperplasia and cortical tumor.

—A.L.H.

Solitary Cyst of the Kidney and its Relationship to Renal Tumour

Anthony Walsh (*British Journal of Urology*, 23:377, Dec. 1951) in a review of over 500 cases of solitary cyst of the kidney reported in the literature found a malignant tumor of the kidney to be present in 7 per cent; the incidence of tumor was much higher in those cases in which the contents of the cyst were hemorrhagic (30 per cent). In 17 cases of solitary cyst of the kidney collected by the author in the past three years, there was an associated hypernephroma in 2 cases. In 1 of these cases a parapelvic cyst was surrounded by a hypernephroma, and in the other case the cyst was in the upper pole of the hypernephroma. Cases have been reported in which a benign tumor is found in one part of the kidney and a solitary cyst in another part of the kidney; in such cases there is probably no etiologic relation between the two. But where a malignant tumor is closely associated, there may be an etiologic relationship; in nearly all such cases the neoplasm "impinges" on the base of the cyst. For this reason, the author is of the opinion that if a diagnosis of solitary cyst of the kidney is made, the kidney should be explored. If the contents of the cyst are hemorrhagic, nephrectomy is "probably indicated," because of the high incidence of malignant tumor with hemorrhagic cysts. If the contents of the cyst is only a serous fluid, the cyst should be opened and its base carefully inspected and palpated. In some cases of associated cyst and tumor, the growth of the tumor has been unusually slow, which may be due to interference with its nutrition by the "expanding" cyst.

COMMENT

This report, while of interest, does not seem to substantiate any true relationship between solitary cyst of the kidney and neoplasm.

Single and multiple types of serous cyst can usually be adequately removed by conservative resection operations, with excellent results. Hemorrhagic cysts, however, are truly quite rare. When encountered at operation, the kidney also should be sacrificed if a malignant process is under suspicion.

In reviewing past clinical papers citing large case-series of renal tumors, one is impressed with the rare coexistence of solitary cysts and malignancy.

—A.L.H.

The Management of Staghorn Renal Calculi

C. L. Prince and associates (*American Surgeon*, 17:1057, Nov. 1951) report 61 cases of staghorn renal calculi; the most common symptom was pain over the kidney involved; 23 patients, however, did not have any pain; 5 complained only of "backache"; and in 5 the calculus itself did not cause symptoms, but symptoms due to renal or ureteral disease on the opposite side led to a diagnostic study, which resulted in the discovery of the calculus. In 39 cases the staghorn calculus was unilateral, and the opposite kidney was normal; in 5 of these cases operation was not advised because of the age of the patient, or some other condition contraindicating surgery; in 5 cases operation was advised but has not yet been done. In the

29 cases in which operation was done, nephrectomy was done in 21 cases and removal of the calculus by nephrolithotomy or pyelonephrolithotomy, or heminephrectomy in 8 cases; in 2 cases in which heminephrectomy was done the stone was in one half of a horseshoe kidney. There were no deaths in this series. In cases in which the opposite kidney is normal, nephrectomy is preferred in a large percentage of cases, because of the danger of recurrence of branched calculi or persistent infection after lithotomy, also because the immediate surgical mortality after nephrolithotomy or pyelonephrolithotomy is usually higher than after nephrectomy. In 14 cases in the authors' series in which the calculus was unilateral, and the opposite kidney was diseased, surgery was not advised in one case, was advised in 13 cases and has so far been done in 11 cases. Sixteen operations have been done in these 11 cases, chiefly operations on the opposite kidney or ureter; operation was done on the kidney containing the staghorn calculus in only 4 cases; in 2 nephrolithotomy was done, and in 2 nephrectomy was done after operation had been done on the opposite side and when it was found the kidney containing the staghorn calculus had been completely destroyed. There was one death in this group, after ureterolithotomy on the opposite side. In 6 cases of bilateral staghorn calculi, one patient has refused operation. Bilateral operation, nephrolithotomy or pyelonephrolithotomy has been done on both sides in 4 patients, and on one side in the fifth patient, who is now awaiting operation on the opposite kidney. There was no death in this group. As a rule operation was done first on the kidney showing the best function. Preoperative preparation, which is most important in these cases, included antibiotics, blood transfusions, intravenous fluids, vitamins, and restoration of acid-base balance. In 2 cases, a nephrectomy had been done many years previously; the staghorn calculus in the remaining kidney was successfully removed in each case. These results indicate that operation for removal of staghorn calculi should be done more frequently.

COMMENT

Staghorn renal calculi are frequently discovered, quite by accident, in the course of radiographic studies for other suspected lesions, or by way of urine analyses. Complete freedom from pain is common chiefly because of the absence of urinary obstruction. In the author's cases, one third were without symptoms while others had only backache.

When the calculi are unilateral with a normal opposite kidney, the kidney may be sacrificed with the stones, particularly in elderly subjects or poor-risk patients. The report of Dr. Prince indicates that this was done in about 75% of his cases. To the casual reader this figure seems quite high in view of all the conservative trends and methods more recently developed.

With bilateral calculi, however, nephrotomy and pyelotomy operations are mandatory, on one side at a time, and are proving to be increasingly successful and popular.

Surgical technic has greatly improved and has been aided by use of radiographs made at the operating table to insure complete removal of all calcareous material. In addition, the more recent use of a coagulum formed by injection of fibrinogen and thrombin mixture (bovine) into the pelvis and calyceal tract offers another valuable aid, and safeguards against leaving behind any small stones or fragments within the kidney.

It is obvious, from reports and trends of recent years, that many kidneys will be saved which were formerly removed; also that surgical mortality will be reduced to a minimum, as well as the incidence of stone recurrence and infection.

—A.L.H.

MEDICAL BOOK NEWS

Physiology

Landois-Rosemann. Physiologie des Menschen. Mit Besonderer Berücksichtigung der Chemischen und Pathologischen Physiologie. Edited by Dr. Med. Hans-Ulrich Rosemann. 26th edition. Berlin, Urban & Schwarzenberg, [c. 1950]. 8vo. 958 pages, illustrated. Cloth, DM 46.60.

A new edition of the well reputed and extremely popular Handbook of Physiology has been published. While reading it, the reviewer has been impressed by the advances in medical science compared to the previous edition. The book represents an accomplishment which deserves even higher appreciation, since foreign literature was not always available to the author. This explains certain shortcomings in some of the most modern branches in scientific research, *e.g.*, Endocrinology. Nevertheless, the book is a priceless mine of scientific facts and will be of greatest value for the medical student because of the clarity of thoughts and explanations, as well as a reference book for quick orientation.

MAX G. BERLINER

Medical Sociology

The Adopted Family. Book I: You and Your Child. A Guide for Adoptive Parents. Book II: The Family that Grew. By Florence Rondell and Ruth Michaels. Illustrated by Judith Epstein. New York, Crown Publishers, [c. The Authors, 1951]. 8vo. 64 pages; no pag., illustrated. Board, $2.50 set.

This is a work in two volumes containing advice and guidance for parents who have adopted or who plan to adopt a child. The authors are said to have gained their information by actual experience in social service with adoption agencies. The book should be a helpful guide for other social service workers in this field, but the reviewer doubts if the average foster parent will accept its philosophy. To adopt its methods would turn the "adoptive" home into a social service laboratory, with its checks and double checks. The adoptive home would never be free from legal technicalities and always be exposed to the public eye. The family who has adopted a child wants to forget the matter of adoption as soon as possible, and wishes to be permitted to raise its child the best way it knows without outside help or hindrance.

This is a good book for social service workers *only*.

HARRY APFEL

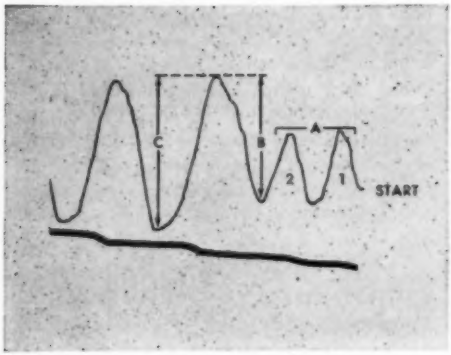
Biochemistry

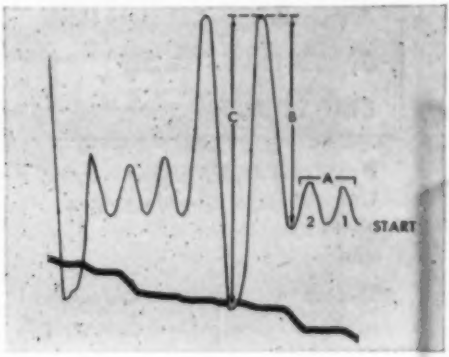
Human Biochemistry. By Israel S. Kleiner, Ph.D. 3rd Edition. St. Louis, C. V. Mosby, Co., [c. 1951]. 8vo. 695 pages, illustrated. Cloth, $7.00.

The rapid advances in the field of biochemistry have made necessary the appearance of a 3rd edition of this excellent book in a very short time. The author recognizes that biochemistry is a functional subject and cannot be divorced from the field of physiology. Its close integration is well woven throughout the book. He further develops his subjects by revealing the effects of pathological alterations in function with brief presentations

—Continued on following page

Cortone® *provides striking benefit in intractable bronchial asthma...*





A. *Tidal breathing* **B.** *Complemental air* **C.** *Vital capacity*

Typical spirogram of asthmatic. Note marked diminution in vital capacity and complemental air; also, the over-all lengthening of the interval between inspiration and expiration.

This spirogram illustrates the improvement that may be expected in asthmatics following the administration of CORTONE. Note in particular the increase in vital capacity.

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EFFECTIVE. Intended as adjunctive therapy, "orally administered, cortisone definitely relieved the symptoms of chronic intractable asthma in 26 of 31 courses given to 22 patients."

SIMPLIFIED MANAGEMENT. "The patients' weight, fluid intake and output, blood pressure, and the results of the urine examination for sugar were charted daily . . . it was found that short-term therapy could be carried out safely for up to two weeks without extensive tests if there were proper cooperation between patient and physician and careful observation. . ."

Schwartz, E., *J.A.M.A.* **147**: 1734–1737. Dec. 29, 1951.

Literature available

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of resulting diseased states. Thus, one sees scattered through the book many illustrations of clinical disorders with well conceived presentations of the pathogenetic development of these diseases.

It is interesting to see the very modest presentation of the history of the investigations leading up to Banting's discovery of insulin, for Dr. Kleiner played a most important part in the earlier contributions. As a matter of fact, his paper in 1915 reveals that he had an active and potent pancreatic extract at that time, but he nevertheless gives Banting and Best full credit for their discovery.

The book is very well written and is highly recommended.

WILLIAM S. COLLENS

Psychiatry

Principles of General Psychopathology. An Interpretation of the Theoretical Foundations of Psychopathological Concepts. By Siegfried Fischer, M.D. New York, Philosophical Library, [c. 1950]. 8vo. 327 pages, illustrated. Cloth, $4.75.

Doctor Fischer deserves much credit for his substantial effort toward classifying that very elusive subject: Psychopathology.

Although there may be differences of opinion concerning some of the definitions used, particularly in Chapter Five, "The Psychopathic and The Neurotic Personality," the reviewer personally finds the material acceptable. No semantics have satisfactorily delineated between the neurotic and "normal" personality. If all factors are considered, it is very unlikely that one could distinguish a "normal" personality.

The material in this book is arranged in an outline fashion, which greatly facilitates reference for the student.

In a subject still controversial, the basic tenets of this composition reflect "middle of the road" concepts. It is felt this book represents a step forward along a difficult path, as such it is heartily recommended.

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THE FIRST LIPOTROPIC PRODUCT TO CONTAIN BETAINE PLUS THE SYNERGISTIC FACTORS CHOLINE, LIVER AND B_{12}

INDICATIONS

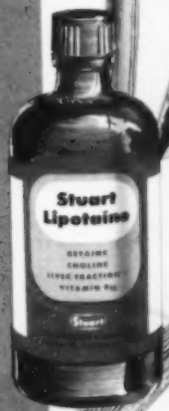
Arteriosclerosis, Atherosclerosis, Cirrhosis of the Liver or Impaired Liver Function, Myocardial Infarction or Coronary Thrombosis, Chronic Alcoholism, High Blood Cholesterol, Disturbed Fat Metabolism, Coronary Sclerosis

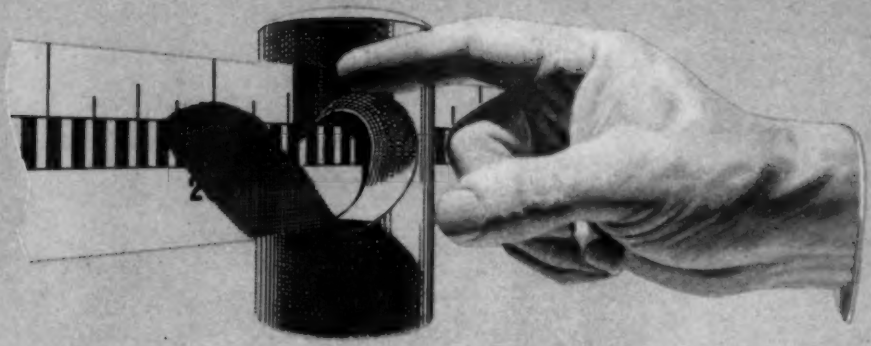
ADVANTAGES

More effective Lipotropic Therapy ★ Maximum potency with minimum bulk ★ Excellent tolerance ★ Non-toxic ★ Pleasant tasting liquid ★ Economical

CAPSULES Each capsule contains	Contents	LIQUID Each tablespoonful (15 cc.) contains:
333 mg.	Betaine*	3 Gm. (3,000 mg.)
35 mg.	Choline*	210 mg.
— —	Liver Fraction 1 N. F.	210 mg.
15 mg.	Desiccated Liver N. F.	— —
2 mcg.	Vitamin B_{12}	12 mcg.
3 capsules 3 or 4 times daily	Dosage	1 tablespoonful 1 to 3 times daily
Bottles of 100 at all pharmacies	Availability	Pints at all pharmacies

*Active Material





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MEDICAMENTA VERA

Parke, Davis & Company

LETTERS TO THE EDITOR

—Concluded from page 40a

"My dear Doctor Holt:

"Dr. Jacobson, the Editor of MEDICAL TIMES, was kind enough to send me your criticisms of my recent article on 'Insulin Dosage for Diabetics.'

"Since I am the 'joker' to whom you referred, I wish to make a few succinct remarks.

"1. My mortality rate in cases of diabetic coma is negligible. I do not remember having lost a single case through the technique advised in the course of my paper.

"2. My former medical students, of whom there are many, have used this method for ten years or longer. As yet, I have had no phone calls nor telegrams which reported death to their patients who had received this therapy.

"3. Diabetic acidosis is brought about by faulty oxidation of carbohydrates because of the unavailability of insulin. That is why it is necessary to bring the blood sugar level to more normal limits as soon as possible. Acidosis tends to clear when the blood sugar level becomes normal.

"4. My article must have been of a research nature, or you would have known of such a procedure long ere this outburst. Incidentally, nervous tension and emotional bouts tend to raise one's blood sugar level. Relax and enjoy life."

Wallace Marshall, M.D.
Two Rivers, Wisc.

Diminishing Returns

"It is with keen regret that I read your editorial appearing in MEDICAL TIMES, June, 1952, page 381, entitled 'Diminishing Returns.'

"The editorial is not only uncalled for but is in very poor taste. Any person in any of the categories mentioned might rightfully take personal affront. The implication of being called parasites and the suggestion of the use of DDT are highly improper and unethical.

"If your complaints are justified there are courts of law and legislatures before which they may be brought."

Austin H. Kutscher, D.D.S.
Division of Research
School of Dental and Oral Surgery
of the Faculty of Medicine
Columbia University

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Because . . .
AVC Improved suppresses secondary invaders . . . an important therapeutic goal.

TRICHOMONICIDAL
. . . It Kills Trichomonas—

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. . . It Kills Fungi—
Especially monilia.

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. . . It Kills Bacteria—
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DEODORANT
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MODERN THERAPEUTICS

Preliminary Study of A New Antiparkinson Agent

Tropine benzohydryl (MK-02, Merck), contains the tropine portion of atropine and the benzohydryl portion of benadryl; both drugs have previously been found useful in parkinsonism. Preliminary studies showed tropine benzohydryl to have atropine-like and antihistaminic activities and to be extremely nontoxic. Tablets of 0.5, 1, 2 and 5 mg. of the new drug were used with great promise in 20 patients with all types of parkinsonism, according to Doshay, Constable and Fromer writing in *Neurology* [*2*:233 (1952)], control of rigidity, cramps, spasm, sialorrhea and tremor were observed; the fixed fancies improved. Requirements of the drugs varied markedly among patients with different types of parkinsonism, postencephalitic patients requiring the largest amounts. The drug has prolonged effects and some cumulative action so that dosage once daily sufficed in some cases. The chief side effect was dryness of the mouth occurring in 17% of 62 patients so far studied (but not reported on here). The only other side effects of note were transient weakness, listlessness and depression. In such cases trihexyphenidyl was given for its cerebral stimulating action; when the drugs were given together, the dosage of trihexyphenidyl was much smaller than that required alone. This agent was given before meals, the new drug after meals. A table shows the tropine benzohydryl had an incidence of 27.4 mild and 3.2 disturbing reactions, as com-

—Continued on page 60a

give yourself a surgical treat

The next time you close the rectus sheath, ask the nurse for your Davis & Geck suture with an Atraumatic® needle. Note how smoothly the Atraumatic needle carries the suture through the tissue with less trauma, less effort, and greater speed. How different from dragging through a double thickness of suture threaded on a conventional needle with its trauma, greater effort, and the frequent annoyance of the suture slipping out of the needle eye.

Some surgeons have limited their use of Atraumatic needles to the suturing of the more delicate tissues such as the gastrointestinal tract. However, it should be noted that the same advantages can be obtained from the use of Atraumatic needles in approximating tougher tissues such as peritoneum and the rectus sheath. There is less trauma to the tissues and greater facility in suturing.

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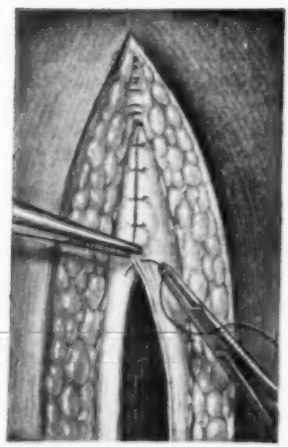

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—Continued from page 58a

pared with 8.5 and 1.7%, respectively, for trihexyphenidyl. The new drug appears to be a valuable addition to treatment of parkinsonism.

Treatment of Acquired Hemolytic Anemia with Compound F Acetate

Compound F acetate was administered to 4 patients with acquired hemolytic anemia associated with circulating antibodies, according to Rosenthal *et al.*, writing in *Lancet* [*1*:1135 (1952)]. The drug was administered to 2 patients in doses of 150 mg. daily intramuscularly in divided doses (in 1 dosage was doubled for a 6 d. period). The other 2 patients received compound F acetate orally, 200 mg. daily in 4 divided doses. Patients who received the compound intramuscularly showed a partial response but did not have the usual remission or toxic effects seen with intensive ACTH or cortisone therapy. This suggests either poor absorption, poor utilization, or inactivation of compound F acetate at the intramuscular site. In 1 patient oral therapy resulted in almost complete remission; toxic manifestations in the form of marked fluid retention and hypokalemia occurred. Similar oral medication in a 4th patient who had severe idiopathic acquired hemolytic anemia produced only a partial remission.

Vitamin D Deficiency in Children

Most people do not have an adequate vitamin D intake. In children signs of subclinical vitamin D deficiency include unwarranted behavior in the waking and sleeping states. This condition should be recognized clinically long before a full-

blown case of rickets develops, according to Wallace writing in *So. Dak. J. Med. & Phar.* [*5*:110(1952)]. Breast-fed babies are more apt to develop vitamin D deficiency than bottle-fed babies because breast-fed babies are dependent mostly upon the food intake of the nursing mothers whose daily vitamin D intake may be nominal. Adequate daily doses of vitamin D will clear up many of the signs of vitamin D deficiency such as sniffling noses, asthmatic breathing, mental retardation, decreased resistance to colds and upper respiratory infections. Distressing symptoms in the sleeping state shown by children with vitamin D deficiency are also improved markedly within 2 months with adequate vitamin D therapy. These symptoms include fretful sleep with nightmares, crying out in their sleep, and grinding of teeth during fretful sleeping periods. With adequate daily doses of vitamin D the entire demeanor of the child is improved.

Orthostatic Hypotension

Marked orthostatic hypotension without tachycardia occurred in a 52 year old man observed over a 3 year period. Several vasoconstrictor sympathomimetic drugs were ineffective in controlling the blood pressure fall in the erect position, according to report of Crost and Friedlander in *Ann. Int. Med.* [*36*:1343(1952)]. Neo-Synephrine, 10 mg. injected intramuscularly in the supine position, produced a marked rise in blood pressure. Neo-Synephrine was then given orally in single doses of up to 110 mg. every morning. Response was variable and the patient was still unable to tolerate the erect position. The patient was subsequently given 0.01 mg. Levophed intravenously in the supine position and blood pressure rose to 270/130 for several min., but hypotension returned when the erect position was assumed. The patient was infused on

—Continued on page 62a

—Continued from page 61a

several occasions with an aqueous solution of Levophed intravenously. On a relatively constant infusion level of 0.02 to 0.03 mg./min., given over a 30 min. period with the patient standing, the blood pressure dropped from 150/110 to an unobtainable level. ACTH and other substances were also ineffective in preventing postural falls in blood pressure.

Treatment of Angina Pectoris with Pure Crystalline Khellin

The use of khellin in the treatment of angina pectoris has been the subject of numerous reports. Results have varied from those who reported 90% improvement to those who found it to be no better than a placebo. Some possible causes for these discrepancies include spontaneous changes in the disease process, different methods of evaluating the results, and variations in the size of the dose of khellin used by different workers.

Writing in *Annals of Internal Medicine* [*36*:1190 (1952)], Scott and Seiwert report on a study undertaken to determine if the purified crystalline khellin would cause undesirable side effects in dosage levels that were considered adequate. It was also desired to learn whether, if such dosage could be achieved, there would be definite improvement in the anginal seizures. The authors arrived at the following conclusions:

1. Purified crystalline khellin was administered orally to 14 patients with angina pectoris.

—Continued on page 64a

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Mild Sedation...

Plus IODINE!
(organically bound)*

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Elixir Organidin® and Phenobarbital

Iodine administered orally (as ORGANIDIN®)* has been shown experimentally to potentiate the hypnotic effect of phenobarbital. (Krantz, J. C., and Fassel, M. J.: J. A. Ph. A. *40*:511, 1941). This finding suggests that in treatment of hypertension concurrent administration of organically bound iodine

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ORGAPHEN®, Wampole's unique elixir of organically bound iodine and phenobarbital, includes only 12 mg. (1/5 grain) of phenobarbital in each 4-cc. teaspoonful (the official elixir contains 20% more phenobarbital). Definite clinical potentiation of the phenobarbital sedation by the organically bound iodine has been observed following administration of ORGAPHEN, equivalent in effect to about twice the amount of phenobarbital alone. Thus relatively little phenobarbital produces adequate sedation when ORGAPHEN is administered. ORGAPHEN is supplied in pint bottles. *Samples and literature on request.*

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MANUFACTURING PHARMACISTS SINCE 1872

—Continued on page 62a

2. These patients were observed during a control period and two subsequent periods of alternate placebo and khellin administration. These periods each averaged approximately four weeks.

3. Eight of the 14 patients experienced fewer anginal attacks while taking purified crystalline khellin than during either the control period or the period of placebo administration.

4. The purified crystalline khellin was started in a daily dose of 200 mg. in all patients.

5. Nine of the 14 patients experienced one or more untoward side effects while taking 200 mg. per day. In all but one of these patients the side effects could be controlled by temporarily discontinuing the khellin or by reducing the dose to 150 or 100 mg. per day.

6. Exercise tolerance tests were performed during the control period and upon completion of the period of placebo and khellin administration. Three patients showed improvement in their exercise tests following khellin therapy.

7. This study indicates that purified crystalline khellin produces fewer side effects than do khellin mixtures in doses considered to be in the therapeutic range.

Topical Application of Panthenol in Dermatoses

Drs. Kline and Caldwell report in *N. Y. State J. of Med.* [*52*:1141(1952)] that since the discovery by Williams and associates of pantothenic acid as a factor in the B complex, it has been widely studied

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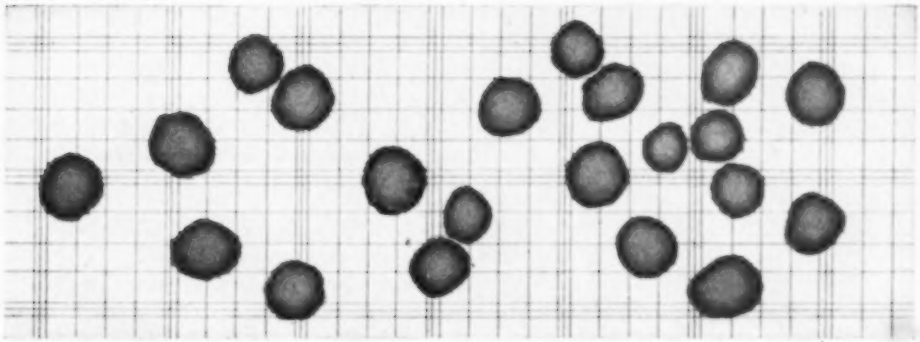

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In macrocytic hyperchromic anemias, "Bemotinic" will provide additional support to specific therapy, or may be used for maintenance once remission has been achieved. In many pernicious anemia patients there is need for iron because of a co-existent iron deficiency.

Suggested Dosage: One or two capsules (preferably taken after meals) three times daily, or as indicated.

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for just the right shade of red

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—Continued on page 64a

in animal and human nutrition. Best and Taylor stated that in humans its function is bound up with that of riboflavin. Their observations are in accord with the findings of Spies and his coworkers who reported that injections of pantothenic acid raised the blood level of riboflavin 20 to 70 per cent.

Much experimental evidence and information has been produced to indicate the role of pantothenic acid in the nutrition of various animals and lower plant life. Bauernfeind *et al.* in experimental studies with fowl were able to demonstrate that it was a vitamin essential for reproduction. In 1931 Ringrose, Norris, and Heuser described a disease of the epidermis of chickens in "which the symptoms were a dermatitis of the margins of the eyelids, a crusting of the angles of the mouth, and thickening, cornification, cracking, and fissuring of the plantar surfaces of the feet and interdigital webs." It was shown to be due to a deficiency of pantothenic acid.

Unna *et al.* noted that the achromotrichia, seen in rats on a diet free of vitamin B complex, could be prevented by adding pantothenic acid to the diet. It was also found in experiments on rats that pantothenic acid favorably influenced the mobilization of riboflavin in the liver during the assimilation of foods.

Of particular interest to the dermatologist are the more recent reports on the local use of pantothenic acid and its active alcohol analog pantothenyl alcohol (panthenol). In a study at Bellevue Hospital in New York City, Combes and Zuckerman investigated the effect of ointments containing panthenol in 5 per cent con-

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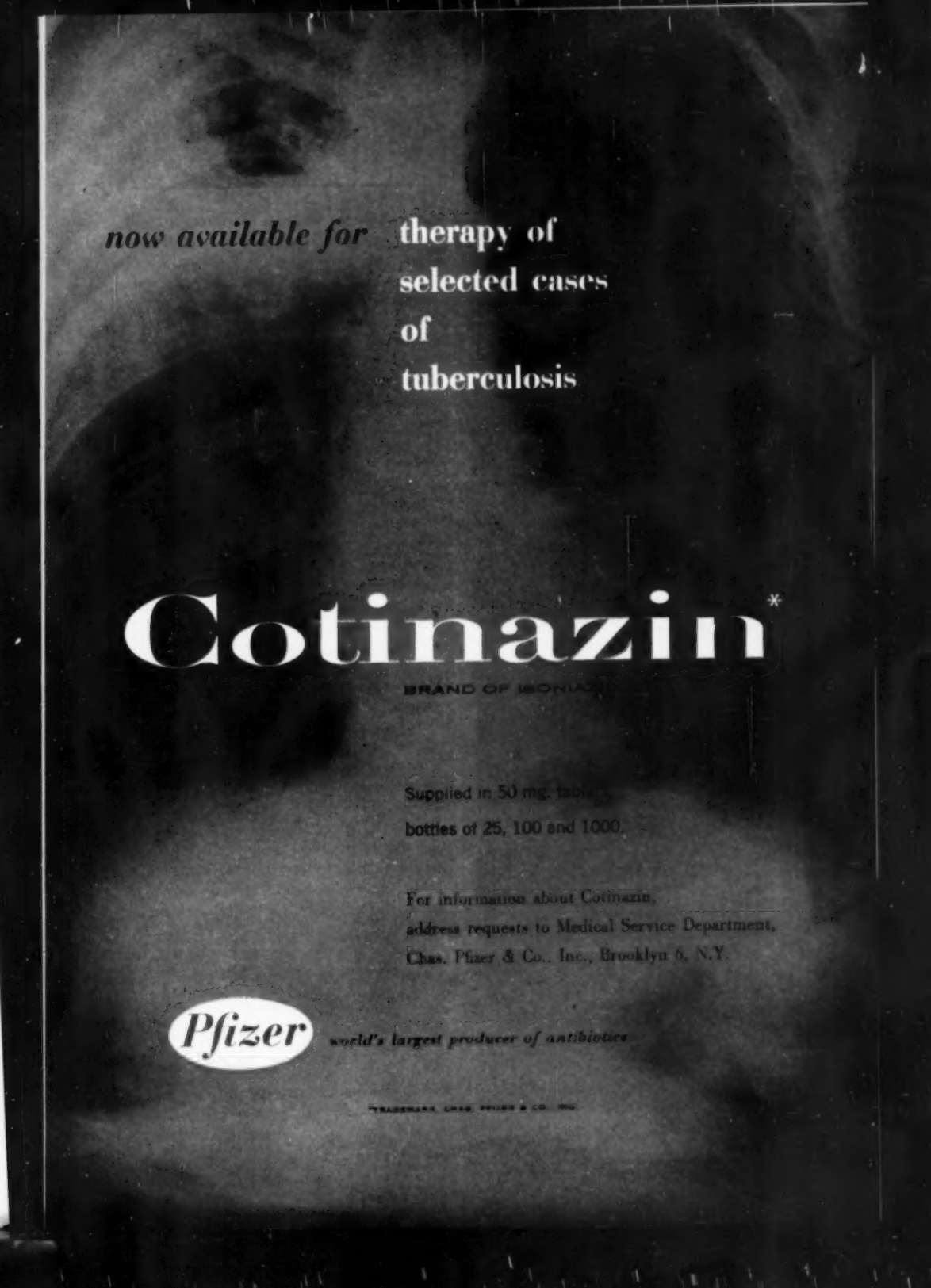
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MODERN THERAPEUTICS

—Continued from page 66a

centrations in conditions requiring stimulation of granulation tissue and epithelization. They reported a favorable influence on the course of various ulcerative and pyogenic dermatoses. Grünberger reported on 90 cases of fissuring of the nipples treated at the postpartum clinic of the Universitate-Frauenklinik of Vienna. He also used a 5 per cent ointment and it provided an excellent medication for hastening the healing of fissures which were too painful for the mothers to nurse their infants. All cases were cured in from one to eight days.

Sciclounoff and Naz reported favorable effects of panthenol in a variety of conditions using various vehicles. They observed a more rapid healing in several cases of noma, in the healing of paronychia following extirpation of the fingernails, in ulcerating prolapsed hemorrhoids with rhagades, and in herpes labialis. Favorable effects of panthenol ointment were also noted in treatment of septic surgical wounds.

At the Gynecologic Clinic of the University Hospital at Zurich, Switzerland, Winzeler and Sauter studied the effect of panthenol on various types of vaginal discharge. They found a marked improvement in 16 out of 27 cases and postulated that the improvement might be due to an indirect antibacterial action of panthenol on the vaginal epithelium. Gaglio also observed this apparent antibacterial action.

It was the desirable combination of epithelization and antibacterial action which had been reported that stimulated interest in conducting a study of the therapeutic value of panthenol in various types of skin conditions. The subjects used included patients both in hospital wards and from private practice. They were treated by topical applications with a 5 per cent

—Continued on page 70a

WHEN IS A VITAMIN DEFICIENT?

"Nutrition must be considered as an entity. No particular constituent is more important than another. Each nutrient should be present in its optimum quantity."[1]

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1. Simonnet, H.: Nutrition in Pregnancy, Canad. M.A.J., 58:556, (June) 1948, p. 560.

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ASCORBIC ACID	50 mg.
CALCIUM PANTOTHENATE	5 mg.
MIXED TOCOPHEROLS (Type IV)	5 mg.
CALCIUM	213 mg.
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COPPER	1 mg.
IODINE	0.15 mg.
IRON	10 mg.
MANGANESE	1 mg.
MAGNESIUM	6 mg.
MOLYBDENUM	0.2 mg.
PHOSPHORUS	165 mg.
POTASSIUM	5 mg.
ZINC	1.2 mg.

MODERN THERAPEUTICS

—Concluded from page 68a

and/or 2 per cent panthenol cream.

Preliminary patch tests were first made on normal skin with both the base and the panthenol cream. No evidence of sensitization was observed either in the preliminary tests or in the treated series of cases, some of which extended over a period of one year.

Panthenol, the alcohol analog of pantothenic acid, was used topically in an aqueous dispersible cream in the treatment of a variety of dermatoses. This preparation showed clinical evidence of epithelizing stimulation, of an antipruritic effect, and of an antibacterial effect in these dermatoses which are of varied etiology. In some cases the result was obtained with a marked efficiency not obtained by other topical remedies. A concentration of 2 per cent Panthenol was found to be as effective as the 5 per cent concentration. No evidence of sensitization to panthenol or the vehicle was encountered. Further investigation of the topical application of panthenol in other types of dermatoses is indicated.

Sex Differences in Performances of Physical Therapists

It has been demonstrated that men and women therapists do not differ significantly with reference to the professional knowledge they possess if they are tested at a time when the maximum number of variables which could make for differences is controlled. Writing in *Archives of Physical Medicine* [33:345(1952)], Gerken reports it possibly may be shown that in their performance on the job, evaluated after they have had experience, either sex may be superior to the other, depending on personality factors and other variables.

PSORIASIS
ugliness is skin deep
RIASOL
has *deep action*

Cosmetics have their place for many superficial skin blemishes. But in psoriasis the cutaneous lesions are located in the deeper layers of the epidermis, and deep therapeutic action is required.

RIASOL contains the approved alterative, mercury, chemically combined with soaps. In this saponaceous form the mercury penetrates the stratum corneum and reaches the deeper layers of the epidermis, from which the evolution of psoriasis originates.

In other words, RIASOL reaches the seat of the psoriatic skin lesions. This explains in part why treatment with RIASOL has proved 76% successful in clearing or improving the scaly patches of psoriasis in controlled clinical cases.

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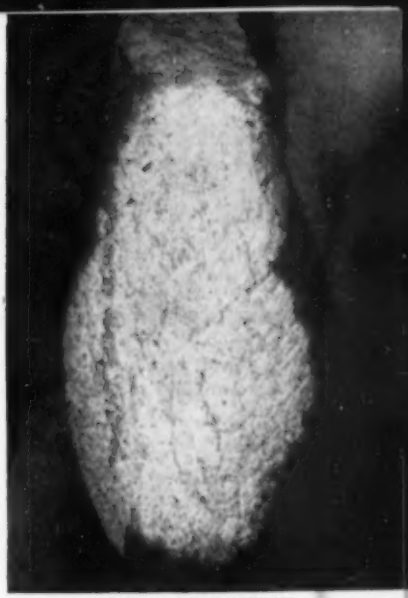
Apply daily after a mild soap bath and thorough drying. A thin invisible, economical film suffices. No bandages required. After one week, adjust to patient's progress.

Ethically promoted RIASOL is supplied in 4 and 8 fld. oz. bottles, at pharmacies or direct.



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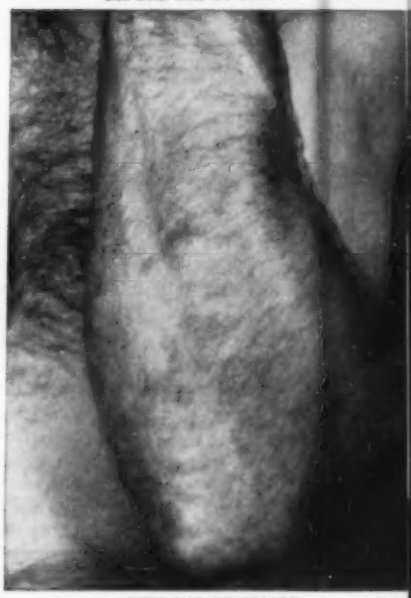

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RIASOL for PSORIASIS

NEWS AND NOTES

Number of Physicians in U.S. At All-Time High

The number of physicians in the continental United States at the end of 1951 stood at an all-time high, 211,680, according to the annual licensure report of the A. M. A. This represented a net increase of 2,640 doctors in the United States during 1951.

The report, prepared by Dr. Donald G. Anderson, secretary of the A. M. A. Council on Medical Education and Hospitals, and Mrs. Anne Tipner, both of Chicago, was published in a recent issue of the *Journal of the A. M. A.*

Official figures indicated that in 1951 there were 6,282 persons who, for the first time, obtained licenses to practice in the United States. The net gain of 2,640 for the year was after an estimate of the number of deaths of physicians based on reports to the A. M. A.

New York, the report showed, had the greatest number of first-time licentiates, 743; California was second with 526. Next in order were: Illinois, 437; Ohio, 394; and Pennsylvania, 388. Increases in the number of first-time licentiates, as compared with 1950 figures, occurred in 26 states.

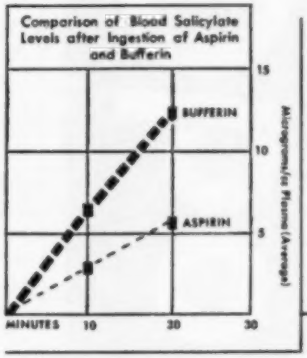
A total of 12,008 licenses were issued in the United States and possessions last year by examination or by endorsement of credentials. This total included those who

—Continued on page 74a

Faster Pain Relief with BUFFERIN

1 ACTS TWICE AS FAST AS ASPIRIN

The antacids in Bufferin speed its pain-relieving ingredients through the stomach and into the blood stream. Actual chemical determinations show that within ten minutes after Bufferin is ingested blood salicylate levels are higher than those attained by aspirin in twice this time.[1]



2 DOES NOT UPSET THE STOMACH

Bufferin's antacid ingredients protect the stomach against aspirin irritation. This has been clinically demonstrated on hundreds of patients.

in usual doses

In a series of 238 cases, 22 had a history of gastric distress due to aspirin but only one reported any distress after taking 2 Bufferin tablets (equivalent to 10 grains of aspirin).[1]

in large doses

In a recent study group, 1006 patients received, over a 24 hour period, 12 Bufferin tablets (equivalent to 60 grains of aspirin). Although 72 had a history of being sensitive to aspirin, only 18 reported any gastric side-effect with Bufferin.[2]

1. Effect of Buffering Agents on Absorption of Acetylsalicylic Acid. J. Am. Pharm. Assoc., Sc. Ed. 39:21, Jan. 1950
2. Gastric Tolerance for Aspirin and Buffered Aspirin. Ind. Med. 20:480, Oct. 1951

INDICATIONS: Simple headaches, neuralgias, dysmenorrhea, muscular aches and pains, discomfort of colds and minor injuries. Particularly useful when gastric hyperacidity is a complication. Useful for relieving pain in the treatment of arthritis.

EACH BUFFERIN TABLET contains 5 grains of acetylsalicylic acid, together with optimum amounts of the antacids aluminum glycinate and magnesium carbonate.

AVAILABLE in vials of 12 and 36 tablets and in bottles of 100. Tablets scored for divided dosage.

NEWS AND NOTES

—Continued from page 72a

had been licensed previously, but who had moved to another state.

California issued the greatest number of licenses, 1,367. Of these, 844 represented licensures by reciprocity or endorsement of credentials, including 216 to candidates who held certificates of the National Board of Medical Examiners. Illinois provided California with the largest number of doctors under state reciprocal licensess, 95; Minnesota was second with 53. California state board examinations resulted in 523 licenses.

New York issued 1,107 licenses, of which 336 were by examinations and 771 by reciprocity or endorsement. Of the latter, 580 held certificates of the National Board of Medical Examiners. Illinois issued 665 licenses; Ohio, 664; Texas, 632, and Pennsylvania, 549.

More doctors educated in foreign countries are appearing before state boards for licenses, and, although the percentage of failure is still large, the number of applicants receiving licenses is on the upgrade, according to the report. In 1951, 524 graduates of foreign faculties of medicine, excluding Canada, successfully passed the examinations; in 1950, the total was 359. The percentages of successful candidates were 52.1 in 1951, and 45.0 in 1950.

To aid examining boards, the A. M. A. Council on Medical Education and Hospitals and the executive council of the Association of American Medical Colleges have prepared a list of foreign medical schools, the graduates of which may be considered on the same basis as those of approved medical schools in the United States.

The list, published in a recent issue of the *Journal of the A. M. A.*, contains the names of 49 schools in 13 countries. It is

—Continued on page 76a

NEWS AND NOTES

—Continued from page 74a

being added to from time to time. Twenty-three licensing boards have accepted this list in the consideration of applicants for licensure. Forty-three boards will admit foreign physicians to licensing examination under varying conditions.

Possibility of Cure Found in Early Diagnosis of Cancer of Larynx

Early diagnosis and treatment of cancer of the larynx, the voice organ, can result in a high percentage of cures and restoration of the voice, according to an article in a recent *Journal of the A.M.A.*

The location of the larynx and the type of malignant lesion that occurs in it make it possible to cure a larger percentage of cancers in this organ than in any other part of the body except the skin, according to Dr. Gabriel Tucker, of the department of bronchology, esophagology, and laryngeal surgery, graduate school of medicine, University of Pennsylvania, Philadelphia.

"Therefore," he added, "it is essential that effort is made in all suspicious cases to secure early diagnosis by careful examination and careful study of the symptoms. These early symptoms are hoarseness and local discomfort."

Surgical removal, irradiation, or, in certain cases, both are the well-established methods of treating this disease, Dr. Tucker stated. Surgery is the treatment of choice in selected cases. Irradiation has proved most valuable in cancer in the older age group and in those patients whose general condition makes surgery an unwise procedure. The use of antibiotics in surgical cases and in surgical treatment of postirradiation cases has aided in obtaining favorable results, he said.

Dr. Tucker reported that of a group of

—Continued on page 78a

PROMPT
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OCULAR
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A new, well-tolerated formula:

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Ciba

—Continued from page 76a

152 patients with laryngeal cancer who were treated with surgical removal of part of the larynx, 86 per cent were free from recurrence of the disease for five years of longer. Of 102 patients treated by complete removal of the voice organ, 61 per cent were free from recurrence for five years or longer.

Although complete results could not be obtained in cases where cancer of the larynx was treated by irradiation, Dr. Tucker said he believed five year cures were obtained in at least 25 per cent of those patients treated by this method.

"Rehabilitation and the possibility of developing an esophageal voice following the complete removal of the larynx are excellent," Dr. Tucker pointed out. "In the older age groups, difficulty with the esophageal voice may be experienced, and many patients prefer using an artificial larynx (electrolarynx), which produces a good voice and enables the patient to resume his place in the social and business world."

Sound and Color Film Available on Treatment of Eclampsia

"Toxemia of Pregnancy," a sound and color film was presented recently at the annual meeting of the American Congress on Obstetrics and Gynecology in Cincinnati, Ohio, as part of the lecture program on the new and modern treatment of eclampsia. The movie is based on more than 220 cases of severe pre-eclampsia and convulsive eclampsia, with only one death in their entire series of patients.

Eclampsia is still the greatest cause of maternal death; the effect on the unborn infant is still more alarming, being the leading cause of fetal death in the United States. Each year, 30,000 babies are estimated to die as a result of toxemia of pregnancy.

Eclampsia, characterized by extremely high blood pressure, with convulsions and coma, has been difficult to treat because of a lack of knowledge concerning its mechanisms as well as a lack of adequate means of treatment. In this new film, Drs. Assali, Garber and Bryant describe by animated illustrations the progressive character of the disease and present the practical routine therapy they employ, using a new, standardized extract of Veratrum viride prepared by Irwin, Neisler &

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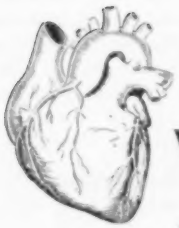

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Injection WYAMINE Sulfate does not increase cardiac irritability; it does not cause cerebral stimulation; it does not significantly alter heart rate nor rhythm; yet pressor response to it is quantitatively equivalent to that of ephedrine.

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NEWS AND NOTES

—Continued from page 78a

Company of Decatur, Illinois. The dramatic results and complete recovery of the eclamptic patient are shown for the first time. Technic of continuous infusion of the new Veratrum viride extract is fully illustrated, with special emphasis on collateral therapeutic control of the convulsive patient.

Veratrum viride, an alkaloidal plant which is native to certain parts of the United States, notably upper New York State, has a long history in medicine, having once been used in pneumonia and other febrile diseases. Recently, a new method of biological standardization has permitted adequate scientific study of this potent drug, and its greatest usefulness is now found in the treatment of hypertension. Veratrum viride has a prolonged effect in lowering blood pressure and overcomes the abnormal constriction of small arterial blood vessels which brings about the elevated blood pressure. Of particular interest is the fact that Veratrum viride does not affect blood pressure in the brain. In treatment of eclampsia, a marked and dramatic lowering of blood pressure is obtained without the production of postural hypotension. The new Veratrum viride extract has proved to be the most effective treatment for the toxemias of pregnancy, according to statements of the authors.

Arrangements have been made to show the sound and color film on invitation before various hospital and medical society groups throughout the country. The film is an educational feature without commercial implication.

Unburned Alcohol in Body Causes Intoxication

The amount of alcohol that a person's body fails to oxidize or eliminate determines the degree of his intoxication, rather than the amount of alcohol that he consumes, a medical consultant stated in a recent issue of the *Journal of the A.M.A.*

"In other words," the consultant pointed out, "it is the unburned alcohol in the body that causes intoxication.

"The average 150 pound man oxidizes and eliminates about seven to ten cubic centimeters of absolute alcohol per hour. If he would space his drinks, he could drink a pint of 100 proof liquor in 24 hours without showing physical or chemical signs of intoxication."

It was stressed, however, that the presence of food in the stomach delays absorption of the alcohol, and the dilution of the alcohol in the stomach is also a factor to be considered.

"The only reliable way to determine a person's state of intoxication is to test

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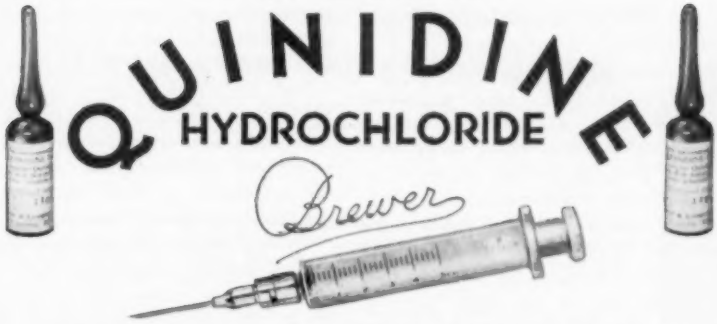

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Administration: INTRAMUSCULARLY or if necessary INTRAVENOUSLY

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REFERENCES:

1. Sturnick, M. I.; Riseman, J. E. F.; and Sagall, E. I.: Studies on the Action of Quinidine in Man: J. A. M. A. 121:917 (March 20) 1943.
2. Sagall, E.I.; Horn, C. D.; and Riseman, J. E. F.: Studies on the Action of Quinidine in Man, Arch. Int. Med. 71:460 (April) 1943.
3. Armbrust, Chas. A. Jr. and Levine, Samuel A.: Paroxysmal Ventricular Tachycardia: A Study of 107 Cases: Circulation, 1: 28-39 (Jan.) 1950.
4. Bell, G. O.; Bradley, R. B., and Hurxthal, L. M.: Paroxysmal Tachycardia. Experiences with Massive Doses of Quinidine Intravenously in a Refractory Case: Circulation, 1: 939 (April Part II) 1950.
5. Sodore, Max S., Galston, Bernard M., and Wyant, Gordon M.: Surgical Evaluation and Management of Cardiac Patients: Post-graduate Medicine: 10. 98 (Aug.) 1951.
6. Greenfield, Irving and; Reiss, Joseph: Paroxysmal Ventricular Tachycardia: Experience with Quinidine Hydrochloride: American Heart Journal 42:631-635 (October) 1951.

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—Continued from page 80a

the per cent of alcohol in his blood, breath or urine," it was stated.

An average person who consumed five alcoholic drinks, each containing one-half ounce (15 cubic centimeters) of absolute alcohol, within three hours would have consumed two and one-half ounces of alcohol (75 cubic centimeters) according to the consultant. This amount could cause a maximal blood alcohol of about 0.12 per cent by weight, if no oxidation took place. However, in the three hours of drinking, the individual would oxidize about one ounce of alcohol, thus reducing the blood alcohol to a maximum of about 0.08 per cent.

Visiting Nurse Essential in Community Health Programs

Visiting nurse service is an essential element in organized community health programs, according to Drs. William P. Shepard and George M. Wheatley, of the health and welfare division of the Metropolitan Life Insurance Company, New York.

Many medical services today can be efficiently rendered in the home, and the visiting nurse plays an important part as a member of the medical care team in making home care, in appropriate cases, as beneficial to the patient as hospital care, the doctors wrote in a recent issue of the *Journal of the A.M.A.*

"Today major factors that tend to reemphasize the home as an important place where medical care may be rendered are the increasing cost of hospitalization; the growing number of older persons with chronic disease, many of whom may be adequately cared for at home with proper planning and services; the development of potent therapeutic agents, such as antibiotics, enabling the physician to treat cases at home in which formerly hospitalization was necessary; and recognition of the importance of social and psychological factors in illness," they added.

"Nearly always circumstances made it appear that the hospital was best. Now, in view of the factors just mentioned and others, the physician must more seriously consider treating the patient at home. Where a visiting nurse service is available, more judicious and perhaps limited use of hospital service is possible."

Visiting nurse service is not a form of socialized medicine, the doctors stressed, adding:

"On the contrary, it is a product par excellence of the voluntary health movement in this country, and thus becomes an excellent defense against demands for government control of medical practice.

"It is the practicing physician's partner in caring for the sick. In view of the growing importance of home care of the sick, we are convinced that a visiting nurse service has a role to play commensurate with that of the hospital."

Visiting nurse service in North America began in New York City in 1877 to supplement the physician's care in the home, according to the doctors. Today

—Concluded on page 84a

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by T. M. Larkowski,† Professor of Clinical Surgery, Stritch School of Medicine, Loyola University, Chicago, Ill., and A. R. Rosanova, Clinical Instructor, University of Illinois Medical School, Chicago, Ill.

†Deceased

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NEWS AND NOTES

—Concluded from page 82a

there are 1,038 visiting nurse associations in the United States, employing 4,774 graduate nurses; about 8,000 cities and towns in the United States and Canada are being serviced.

These nurses generally average about 2,000 visits each a year. It may be estimated that these organizations are responsible for approximately 10,000,000 visits per annum, servicing about 2,000,000 patients in the course of the year, the doctors pointed out. A survey has shown that approximately 8.7 per cent of the visits made are at the request of physicians. However, the doctors added, a considerably larger, but immeasurable, number of calls and visits are made by the nurse associations upon the prompting of physicians or by request made by patients, employers and others.

Penicillin Successful in Short-term Treatment of Heart Condition

A two-week's course of intensive penicillin therapy has proved successful in the treatment of subacute bacterial endocarditis, a subacute inflammation of heart valves due to bacterial infection, it was reported by two Cincinnati physicians in a recent *Journal of the A.M.A.*

Former methods of penicillin therapy required from four to eight weeks to effect the same results, the eradication of the bacterial infection, according to Drs. Morton Hamburger and Leon Stein, of the University of Cincinnati College of Medicine and the Cincinnati General Hospital.

Under the new procedure, intramuscular or intravenous injections of 15 to 16 million units of penicillin are administered daily for a period of two weeks, the doctors said.

Twelve patients, ranging in age from 13 to 57 years and with considerable diversity of valvular involvement, were so treated by the doctors. Ten are still living after periods ranging from one and one-half to four and one-half years, giving a survival rate of 83.3 per cent. The two deaths which occurred in the group studied followed cessation of treatment, but autopsy showed that bacteriological cure had been effected in both patients, the doctors stated. Two of the 12 patients had relapses, but were successfully treated in a second two-week's course, they added.

Of the 10 living patients, the doctors pointed out, only two are not leading essentially normal lives—one because of advanced cerebral deterioration with paralysis on one side of the body, and the other because of cerebral and cardiac symptoms of advanced aortic stenosis.

The doctors consider the statistics too limited to draw valuable conclusions. Their purpose in reporting is to stimulate further investigation.

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